

24<sup>TH</sup> ANNUAL



24<sup>TH</sup> LCI CONGRESS  
OCTOBER 18-21

# Sharpening the Axe

Taking the Time for Project Success

Troy Steege, Advocate Aurora Health | Annie Sit, CannonDesign  
Tony Coraggio, The Boldt Company | Megan Zak, HGA

LEAN GUMBO: THE RIGHT INGREDIENTS FOR PROJECT SUCCESS  
OCTOBER 20, 2022



A large pile of cut logs is the central focus of the image, stacked in a somewhat haphazard manner. The logs are of various diameters and are cut at different angles, showing the natural grain of the wood. The background is a misty or foggy forest with tall, thin trees that are mostly bare, suggesting a late autumn or winter setting. The overall tone is somber and contemplative.

Give me six hours to chop down  
a tree and I will spend the first  
four sharpening the axe.

Abraham Lincoln



# Agenda



## Sharpening The Axe

- Cultivate People
- Build the Right Project, Build the Project Right

## Lessons Learned

## How Can You Apply?

# Advocate Aurora Health

## Together By The Numbers



**Top 10**

NOT-FOR-PROFIT  
HEALTH SYSTEM



**3,300+**

EMPLOYED  
PHYSICIANS



**4,800+**

ALIGNED PHYSICIAN  
PARTNERS



**27**

HOSPITALS



**500**

OUTPATIENT  
LOCATIONS



**70,000**

EMPLOYEES



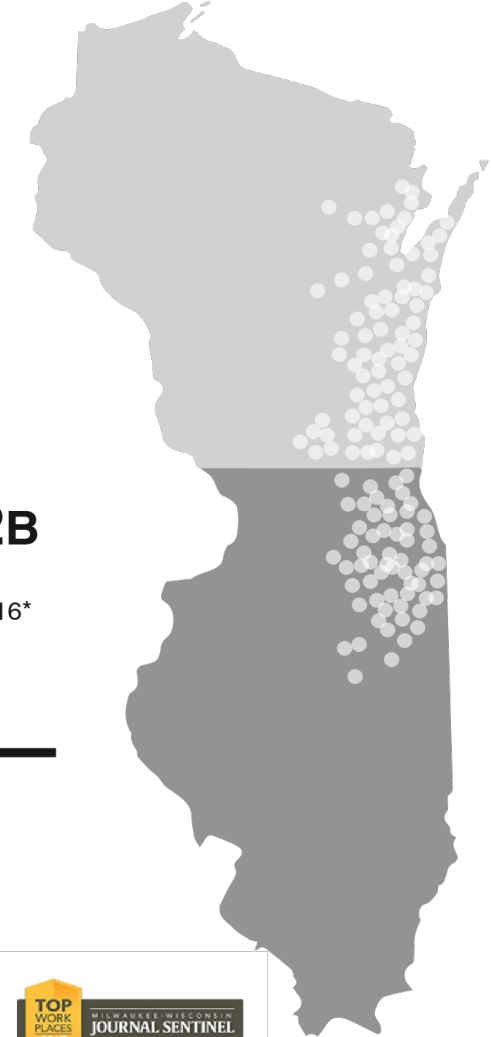
**2.7M**

UNIQUE  
PATIENTS



**Nearly \$2B**

COMMUNITY  
BENEFITS IN 2016\*



- **12** hospitals
- Nearly **400** sites of care
- **37,000** associates
- **1,500** employed physicians, **3,500** physician partners
- More than **1.5 million** unique patient visits
- **\$692 million** in community benefits
- **\$5.6 billion** in annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurology, pediatrics and trauma care



- **15** hospitals
- **150** clinics
- **33,000** employees
- **1,800** employed physicians, **1,300** physician partners
- **1.2 million** unique patient visits
- **\$1,093 million** in community benefits
- **\$5.1 billion** annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurosciences, geriatrics, gynecology and primary care





# Advocate Aurora Health

## Together By The Numbers



**Top 10**

NOT-FOR-PROFIT  
HEALTH SYSTEM



**3,300+**

EMPLOYED  
PHYSICIANS



**4,800+**

ALIGNED PHYSICIAN  
PARTNERS



**27**

HOSPITALS



**500**

OUTPATIENT  
LOCATIONS



**70,000**

EMPLOYEES



**2.7M**

UNIQUE  
PATIENTS



**Nearly \$2B**

COMMUNITY  
BENEFITS IN 2016\*

# \$10 billion in revenue



- **12** hospitals
- Nearly **400** sites of care
- **37,000** associates
- **1,500** employed physicians, **3,500** physician partners
- More than **1.5 million** unique patient visits
- **\$692 million** in community benefits
- **\$5.6 billion** in annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurology, pediatrics and trauma care

- **15** hospitals
- **150** clinics
- **33,000** employees
- **1,800** employed physicians, **1,300** physician partners
- **1.2 million** unique patient visits
- **\$1,093 million** in community benefits
- **\$5.1 billion** annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurosciences, geriatrics, gynecology and primary care





# Advocate Aurora Health

## Together By The Numbers



**Top 10**

NOT-FOR-PROFIT  
HEALTH SYSTEM



**3,300+**

EMPLOYED  
PHYSICIANS



**4,800+**

ALIGNED PHYSICIAN  
PARTNERS



**27**

HOSPITALS



**500**

OUTPATIENT  
LOCATIONS



**70,000**

EMPLOYEES



**2.7M**

UNIQUE  
PATIENTS



**Nearly \$2B**

COMMUNITY  
BENEFITS IN 2016\*

# 500 sites of care



- **12** hospitals
- Nearly **400** sites of care
- **37,000** associates
- **1,500** employed physicians, **3,500** physician partners
- More than **1.5 million** unique patient visits
- **\$692 million** in community benefits
- **\$5.6 billion** in annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurology, pediatrics and trauma care



- **15** hospitals
- **150** clinics
- **33,000** employees
- **1,800** employed physicians, **1,300** physician partners
- **1.2 million** unique patient visits
- **\$1,093 million** in community benefits
- **\$5.1 billion** annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurosciences, geriatrics, gynecology and primary care





# Advocate Aurora Health

## Together By The Numbers



**Top 10**

NOT-FOR-PROFIT  
HEALTH SYSTEM



**3,300+**

EMPLOYED  
PHYSICIANS



**4,800+**

ALIGNED PHYSICIAN  
PARTNERS



**27**

HOSPITALS



**500**

OUTPATIENT  
LOCATIONS



**70,000**

EMPLOYEES



**2.7M**

UNIQUE  
PATIENTS



**Nearly \$2B**

COMMUNITY  
BENEFITS IN 2016\*

# 3 million patient visits



- **12** hospitals
- Nearly **400** sites of care
- **37,000** associates
- **1,500** employed physicians, **3,500** physician partners
- More than **1.5 million** unique patient visits
- **\$692 million** in community benefits
- **\$5.6 billion** in annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurology, pediatrics and trauma care



- **15** hospitals
- **150** clinics
- **33,000** employees
- **1,800** employed physicians, **1,300** physician partners
- **1.2 million** unique patient visits
- **\$1,093 million** in community benefits
- **\$5.1 billion** annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurosciences, geriatrics, gynecology and primary care





# Advocate Aurora Health

## Together By The Numbers



**Top 10**

NOT-FOR-PROFIT  
HEALTH SYSTEM



**3,300+**

EMPLOYED  
PHYSICIANS



**4,800+**

ALIGNED PHYSICIAN  
PARTNERS



**27**

HOSPITALS



**500**

OUTPATIENT  
LOCATIONS



**70,000**

EMPLOYEES



**2.7M**

UNIQUE  
PATIENTS



**Nearly \$2B**

COMMUNITY  
BENEFITS IN 2016\*

# preferred partner program



- **12** hospitals
- Nearly **400** sites of care
- **37,000** associates
- **1,500** employed physicians, **3,500** physician partners
- More than **1.5 million** unique patient visits
- **\$692 million** in community benefits
- **\$5.6 billion** in annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurology, pediatrics and trauma care



- **15** hospitals
- **150** clinics
- **33,000** employees
- **1,800** employed physicians, **1,300** physician partners
- **1.2 million** unique patient visits
- **\$1,093 million** in community benefits
- **\$5.1 billion** annual revenue
- Recognized for clinical excellence in cardiovascular, oncology, neurosciences, geriatrics, gynecology and primary care





# Aurora Medical Center Fond du Lac





# Campus

Project Site

Highway 151

Rte 23

N ↙







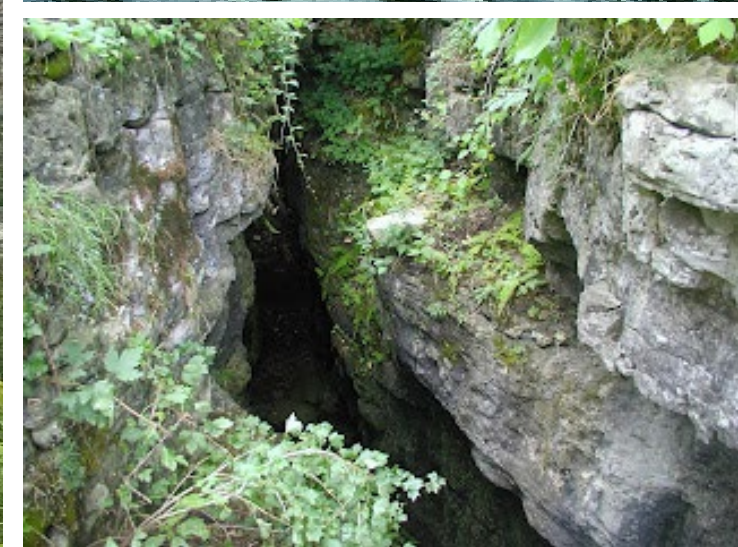
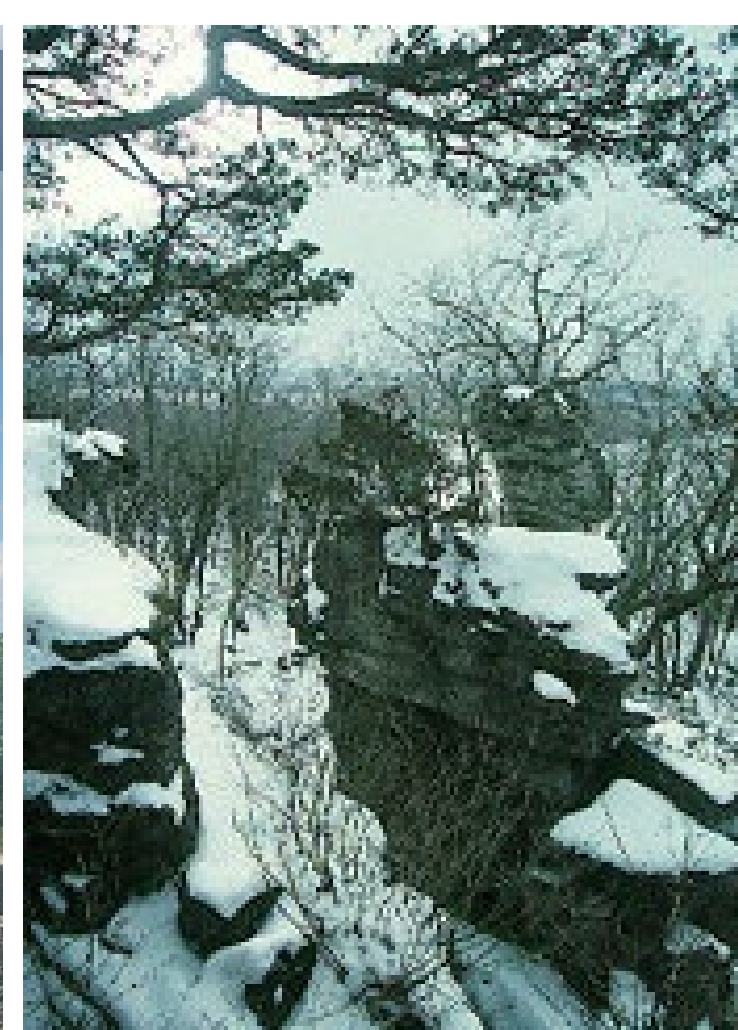
# Fond du Lac

French for “Farthest End of the Lake”





# The Ledge and Kettle Moraine

























# Aurora Medical Center Fond du Lac







# advanced ambulatory and short-term stay facility







# transformational innovation





An architectural rendering of a modern, multi-story building with a mix of brick, stone, and large glass windows. The building features a prominent overhanging roof section. In the foreground, a dark grey car is parked on a paved area. Several people are walking on the sidewalks, and there are small trees and shrubs planted in planters. The sky is blue with some light clouds.

# consumer health destination







# help people live well





# Sharpen the Axe – Cultivate People







Ice Breaker





# Growing up in the 70's/80's



CESS



Houseboat on Mississippi







Invest in Knowledge Sharing





# Planning, Design and Construction Goals

## Safety





# Planning, Design and Construction Goals

## Safety



**Zero Preventable Incidents**





# Planning, Design and Construction Goals

## Remove Project Waste





# Planning, Design and Construction Goals

## Remove Project Waste



**Zero Change Orders**



# Planning, Design and Construction Goals

## Remove Project Waste



**Zero Change Orders**



**100% ILPD**





# Planning, Design and Construction Goals

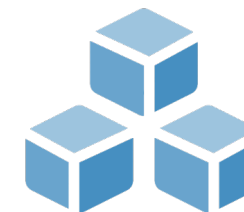
## Remove Project Waste



**Zero Change Orders**



**100% ILPD**



**40% Prefabrication**



# Planning, Design and Construction Goals

Quality





# Planning, Design and Construction Goals

Quality



**100% Healthy Spaces Roadmap**





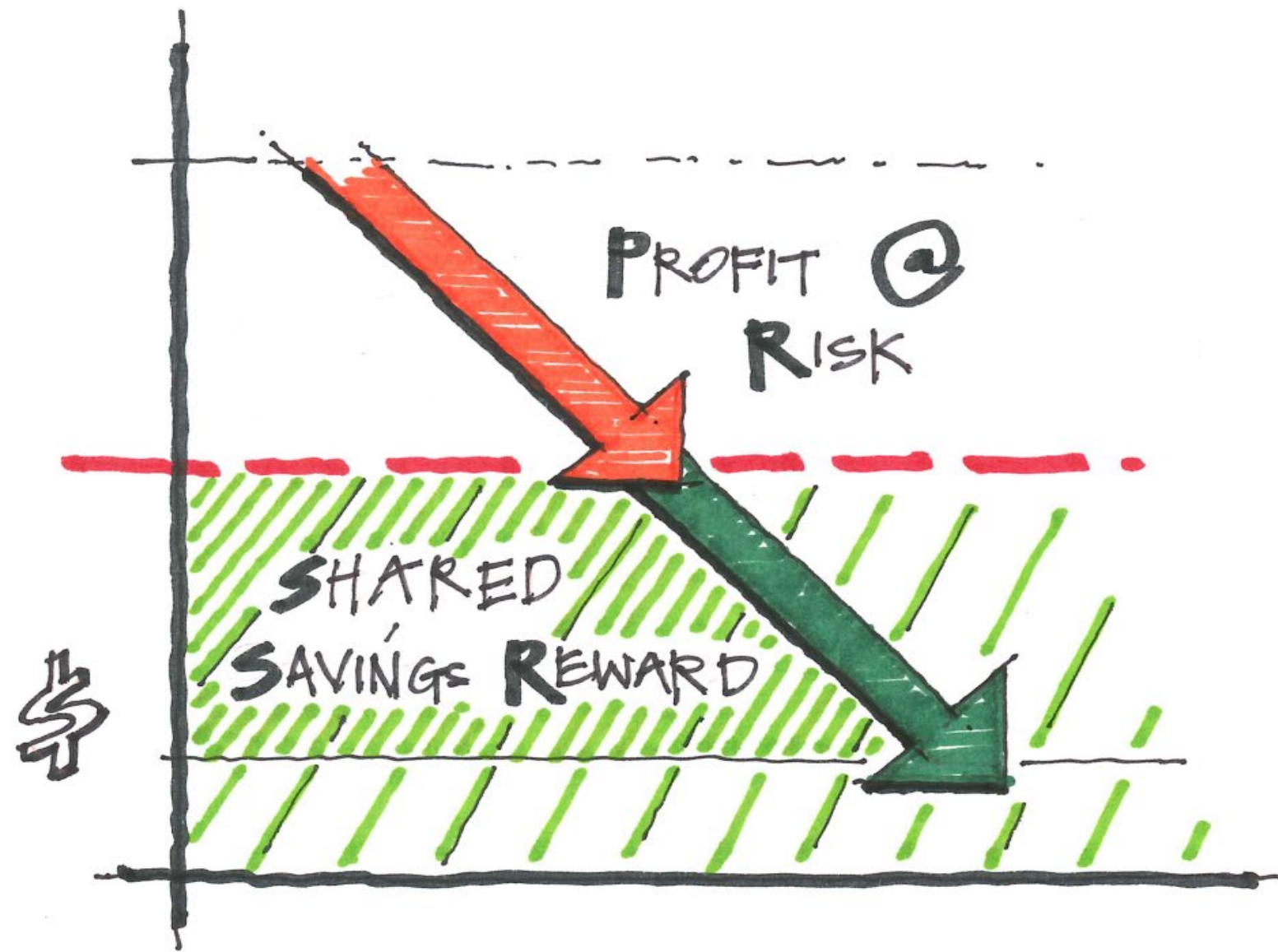


A hand-drawn diagram on a dark blue background. It features a vertical axis and a horizontal axis. A large red arrow points from the top-left towards the bottom-right. The text 'PROFIT @ RISK' is written in the upper right quadrant. A green hatched rectangular area is located in the lower-left quadrant, with the text 'SAVINGS REWARD' written inside it. A small dollar sign (\$) is drawn to the left of this hatched area.

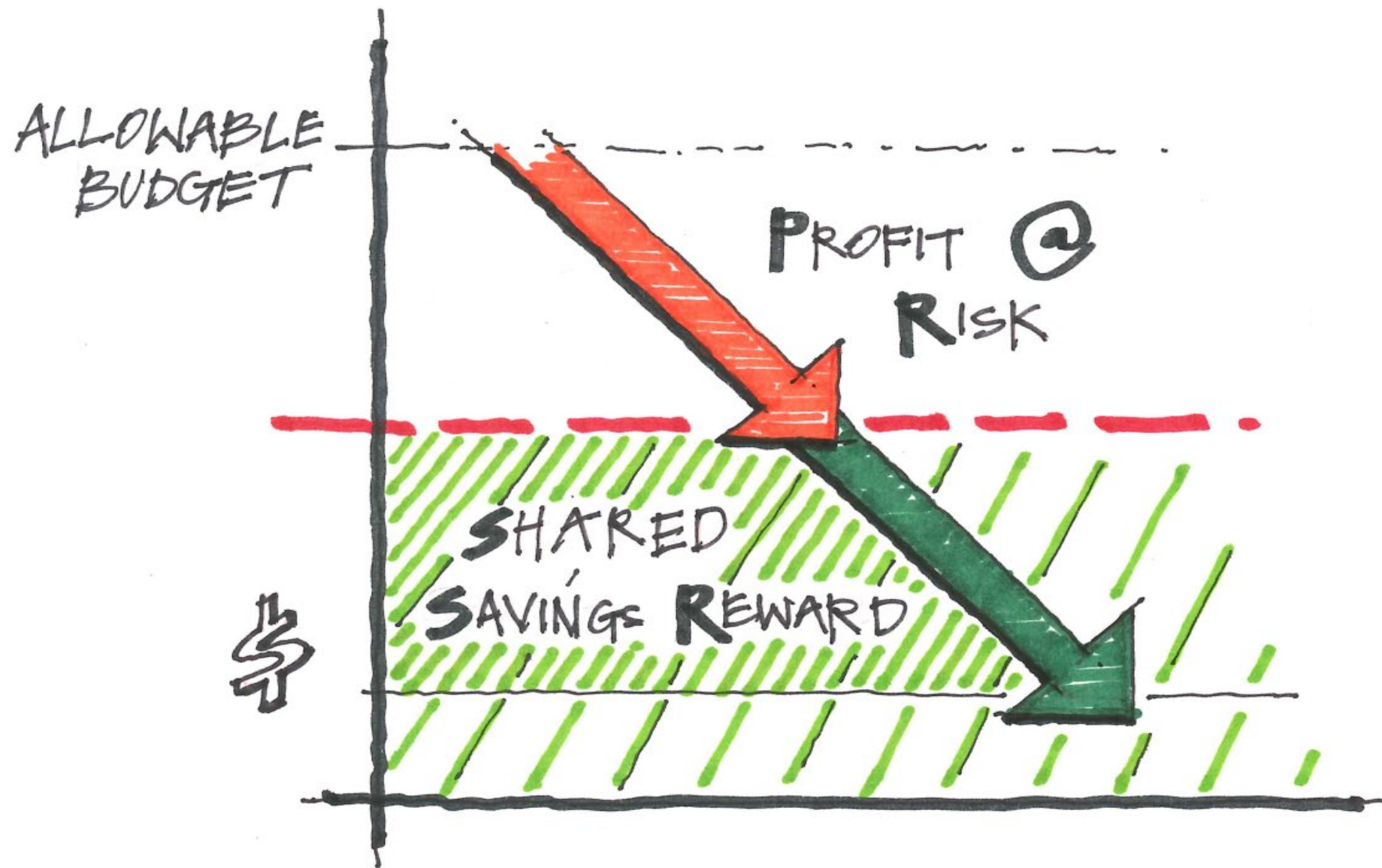
# Integrated Form Of Agreement (IFOA)



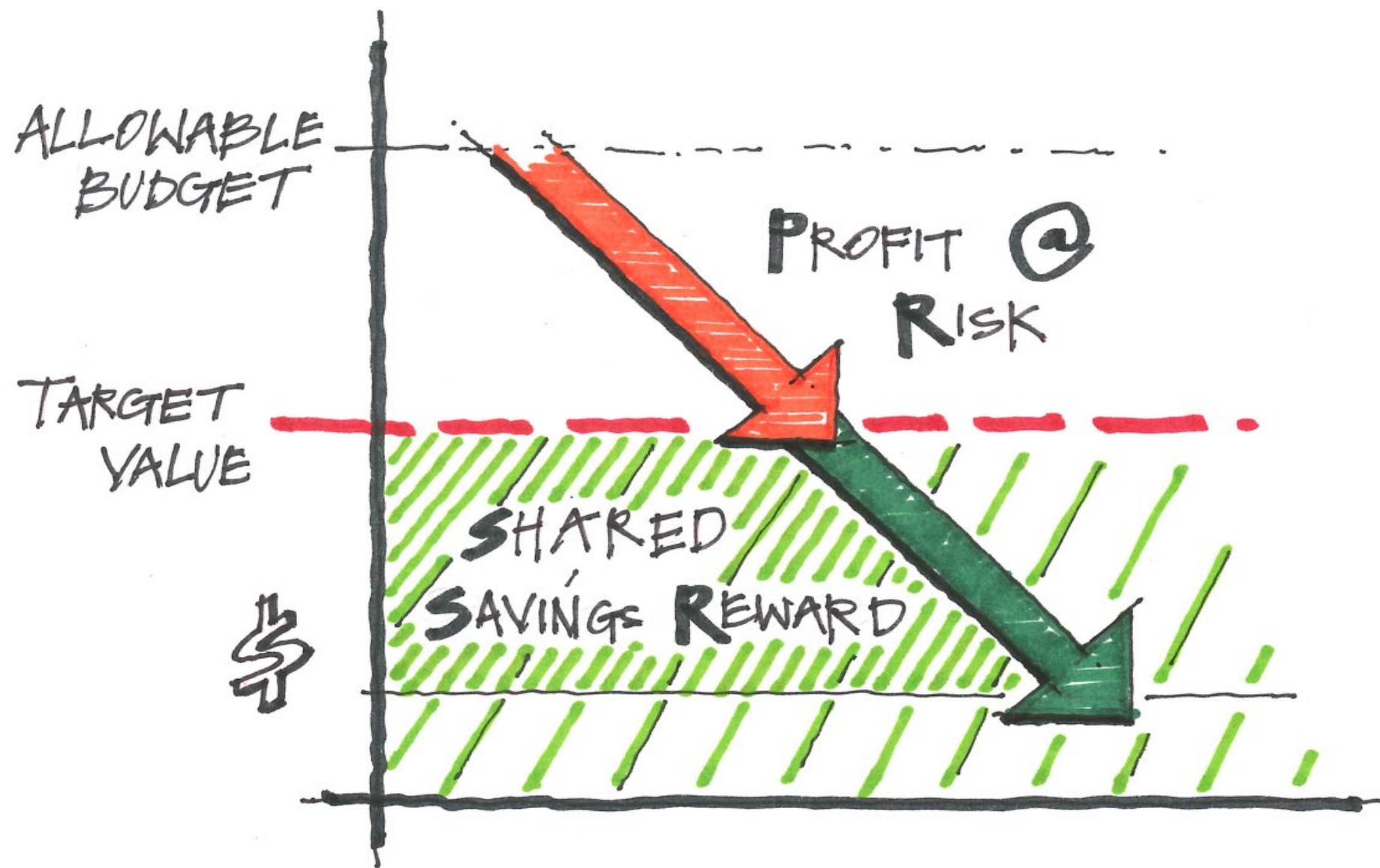




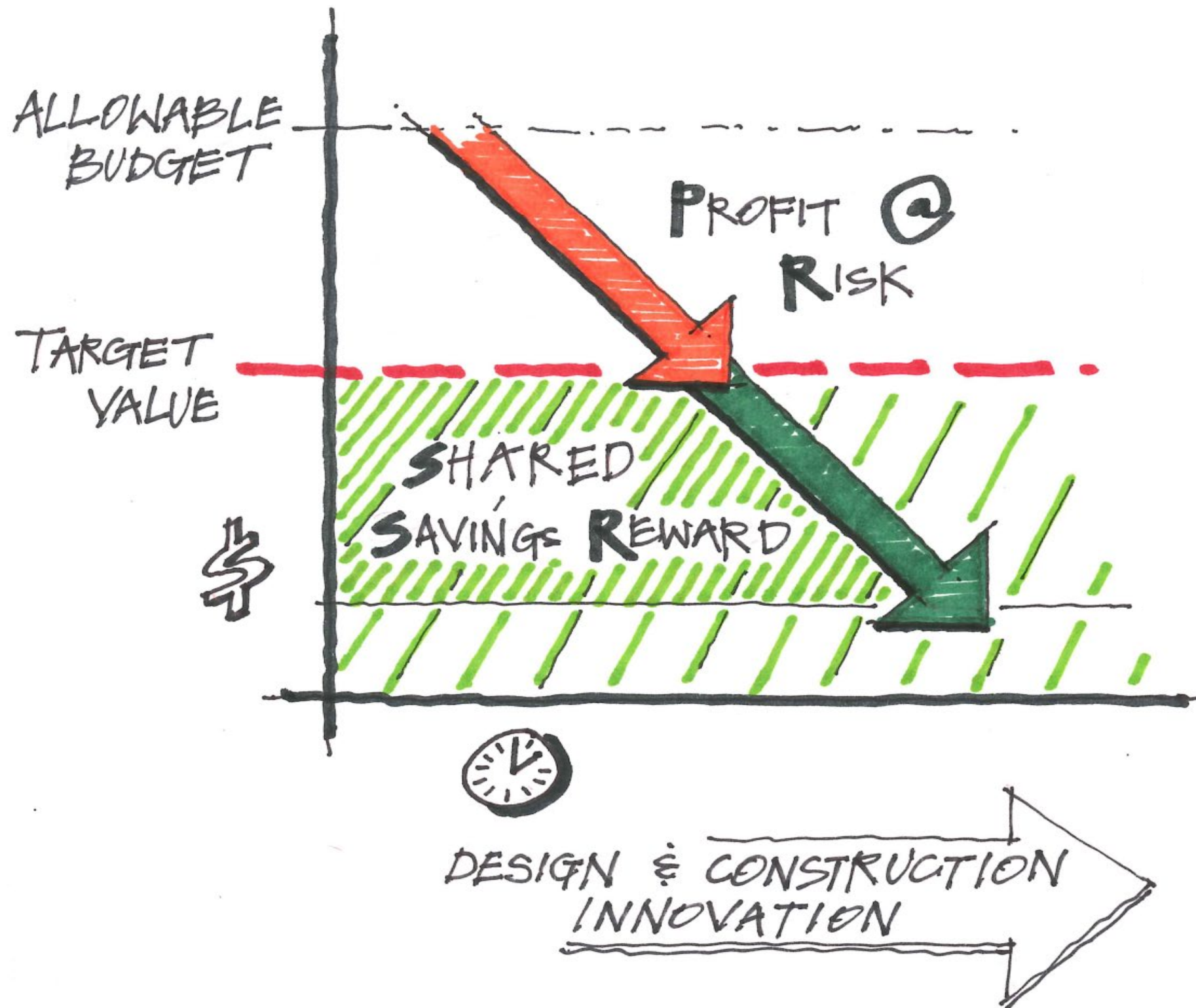




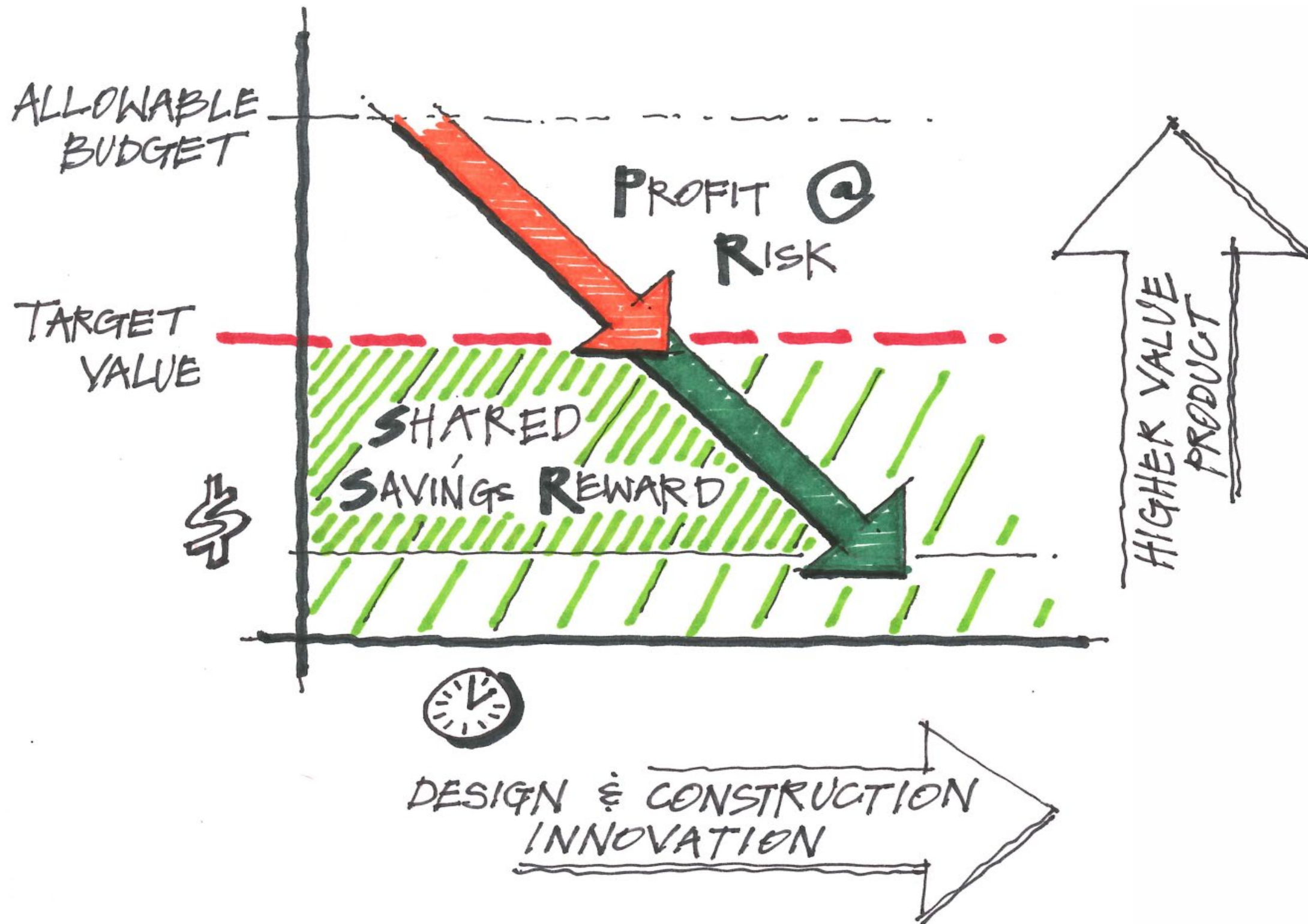














**\$15 million  
contract value**





ALLOWABLE BUDGET

PROFIT @ RISK

TARGET VALUE

SAVINGS REWARD

HIGHER VALUE PRODUCT

DESIGN & CONSTRUCTION INNOVATION

# behaviors expected for all contracts



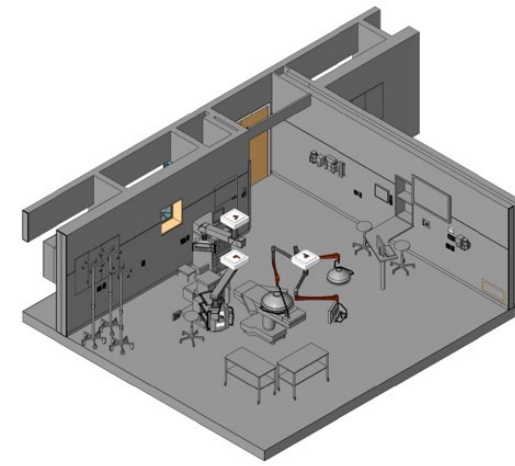


# Standards and Lessons Learned



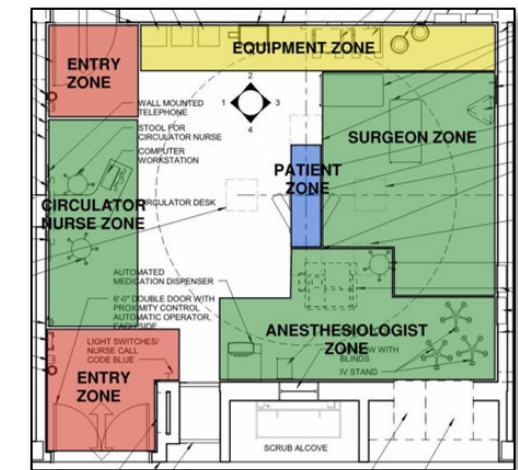
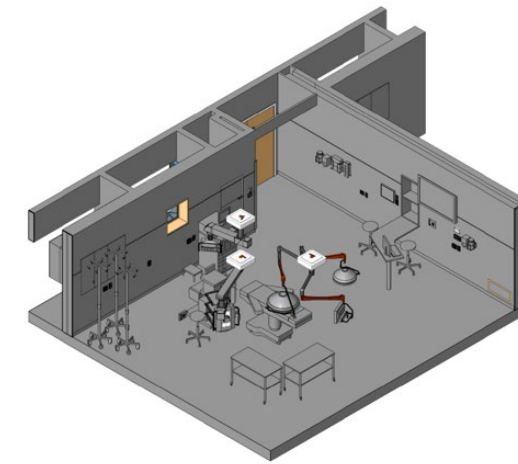


# Standards and Lessons Learned



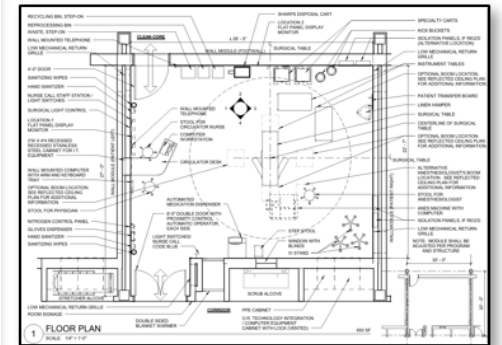
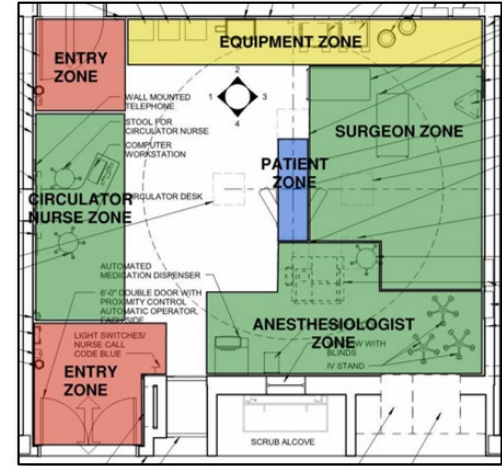


# Standards and Lessons Learned

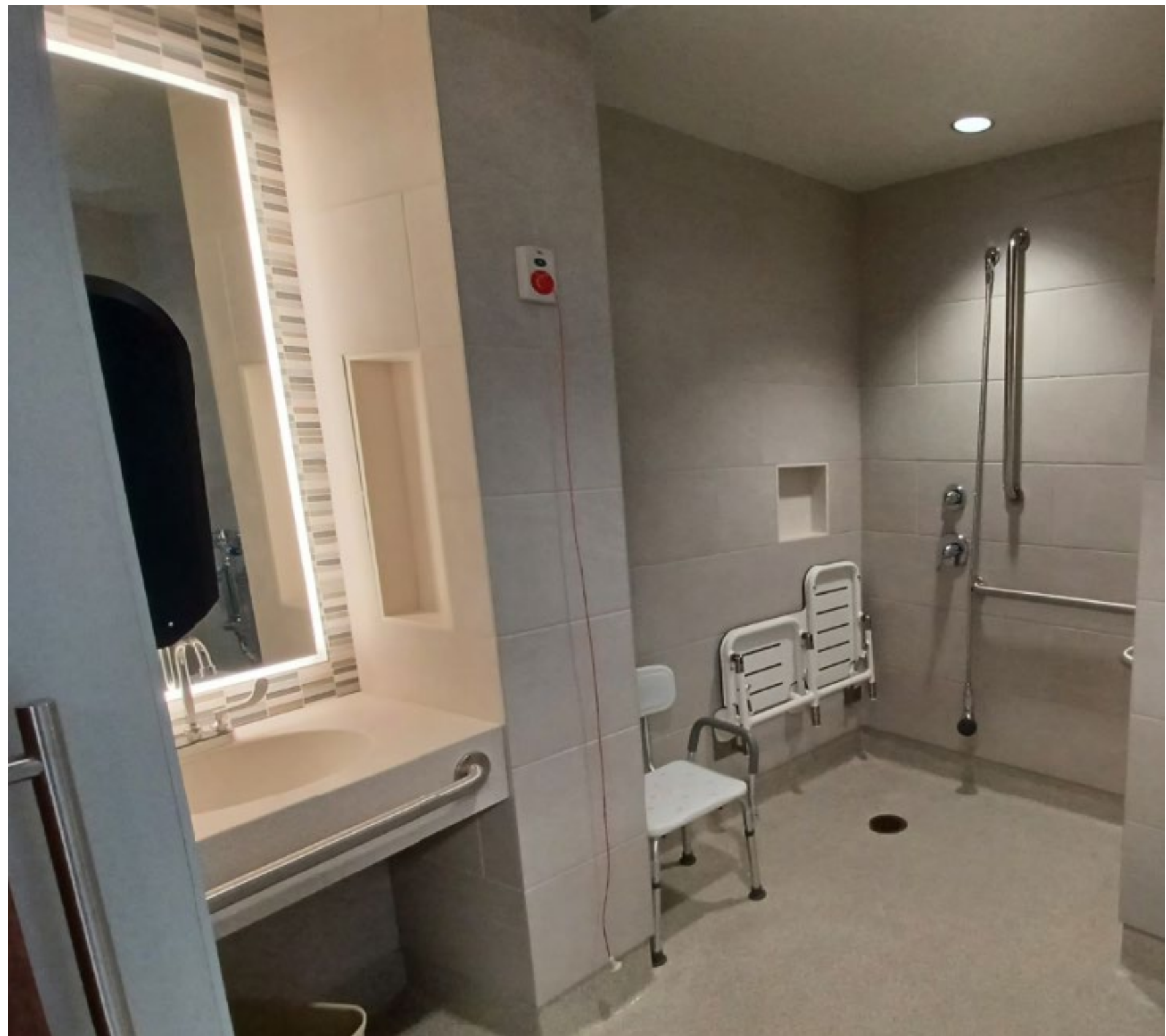




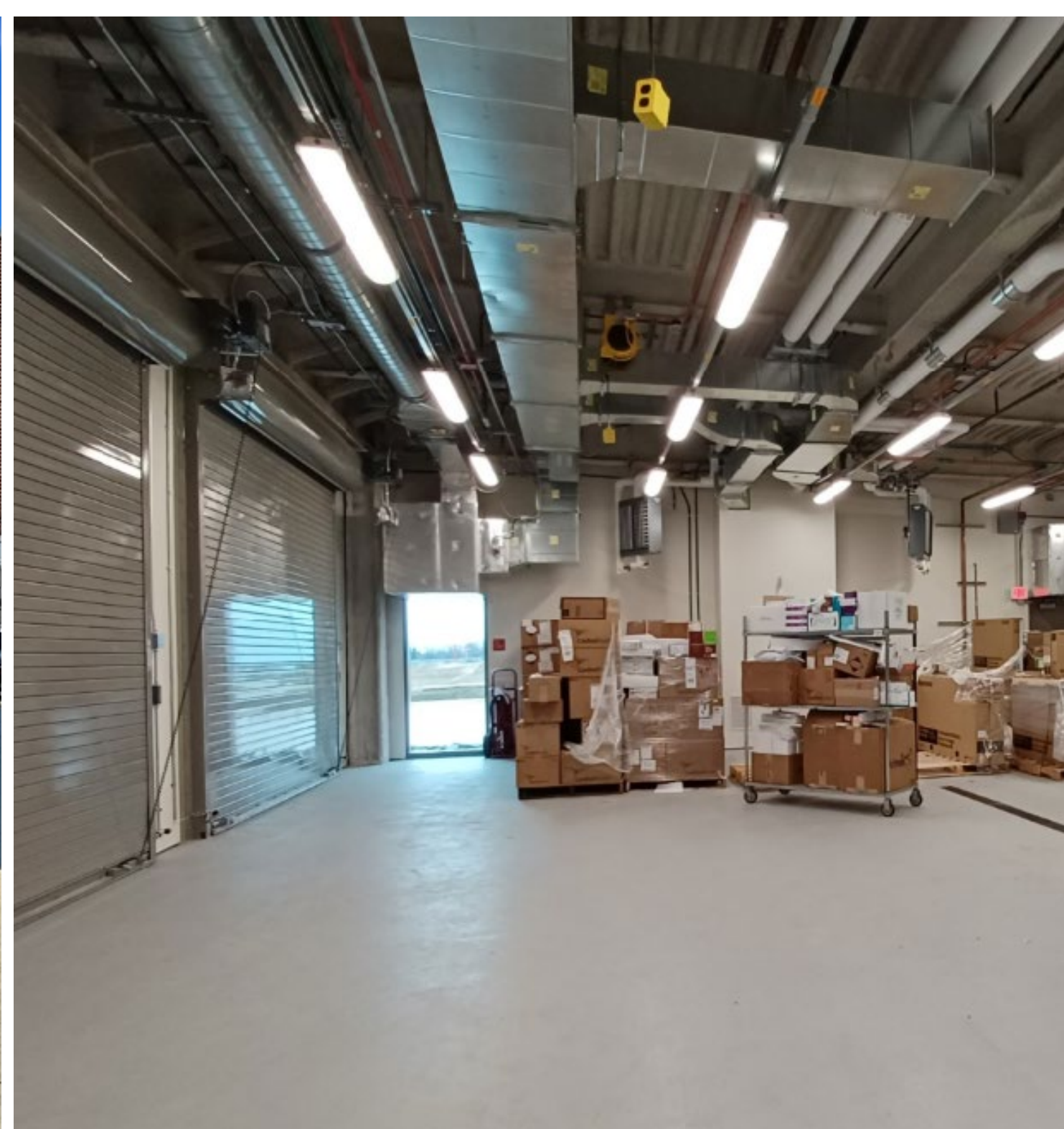
# Standards and Lessons Learned

A photograph of a modern hospital room. In the foreground, there is a white sink with a chrome faucet. To the right of the sink is a patient bed with a blue mattress and a blue blanket. The bed is positioned against a wall with a wooden panel. On the wall, there are several medical outlets and a black panel. A white medical stand is next to the bed. In the background, there is a large window looking out onto a landscape. A green armchair and a small table are near the window. The room has a clean, professional appearance.



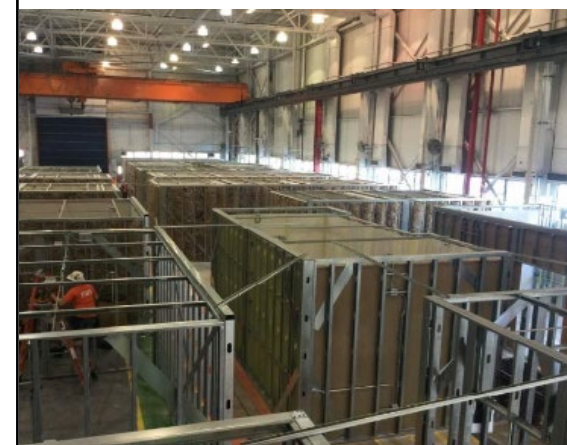






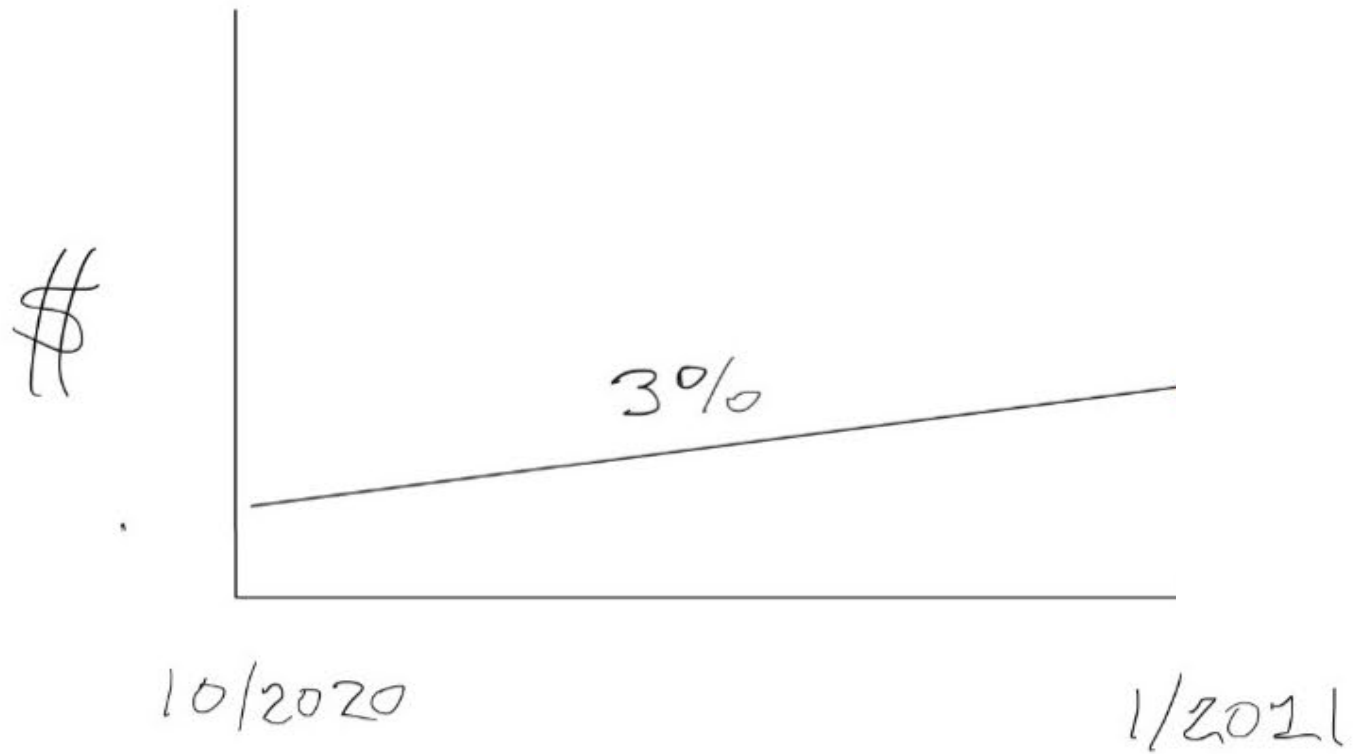


# Prefabrication and Modular Construction





# Hyper-escalation

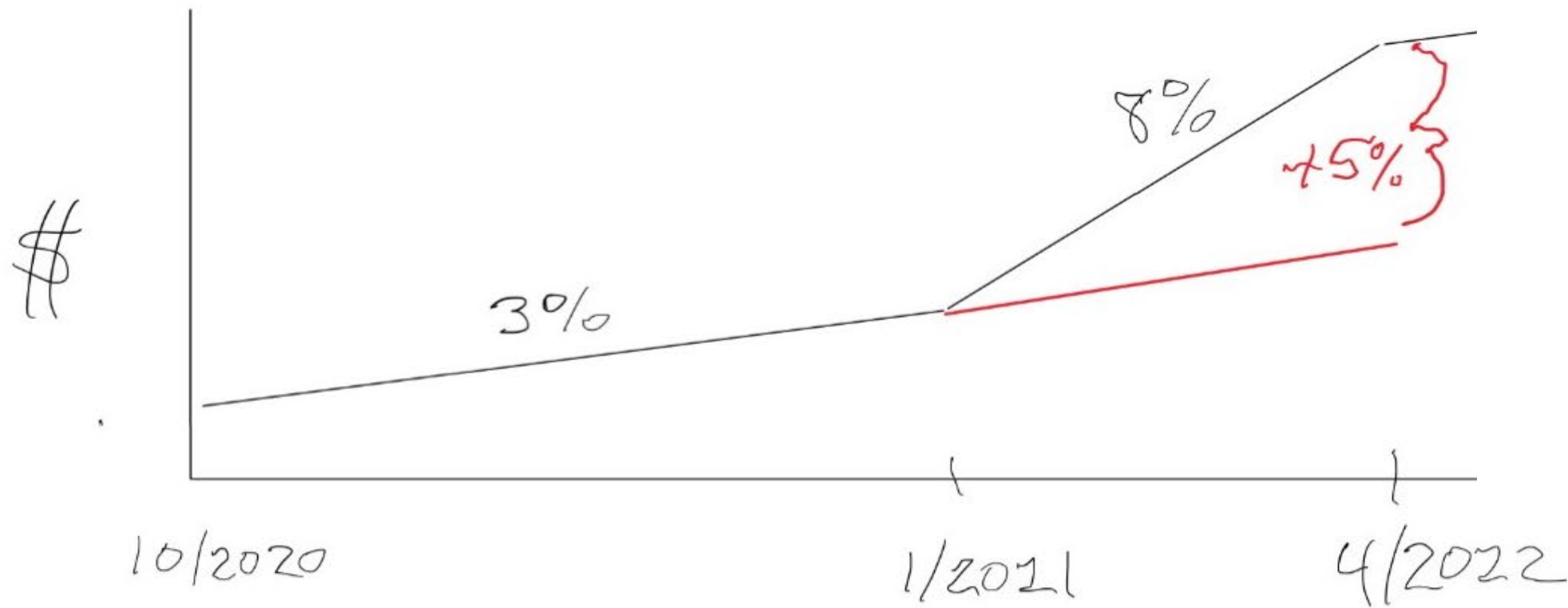


← Std Escalation





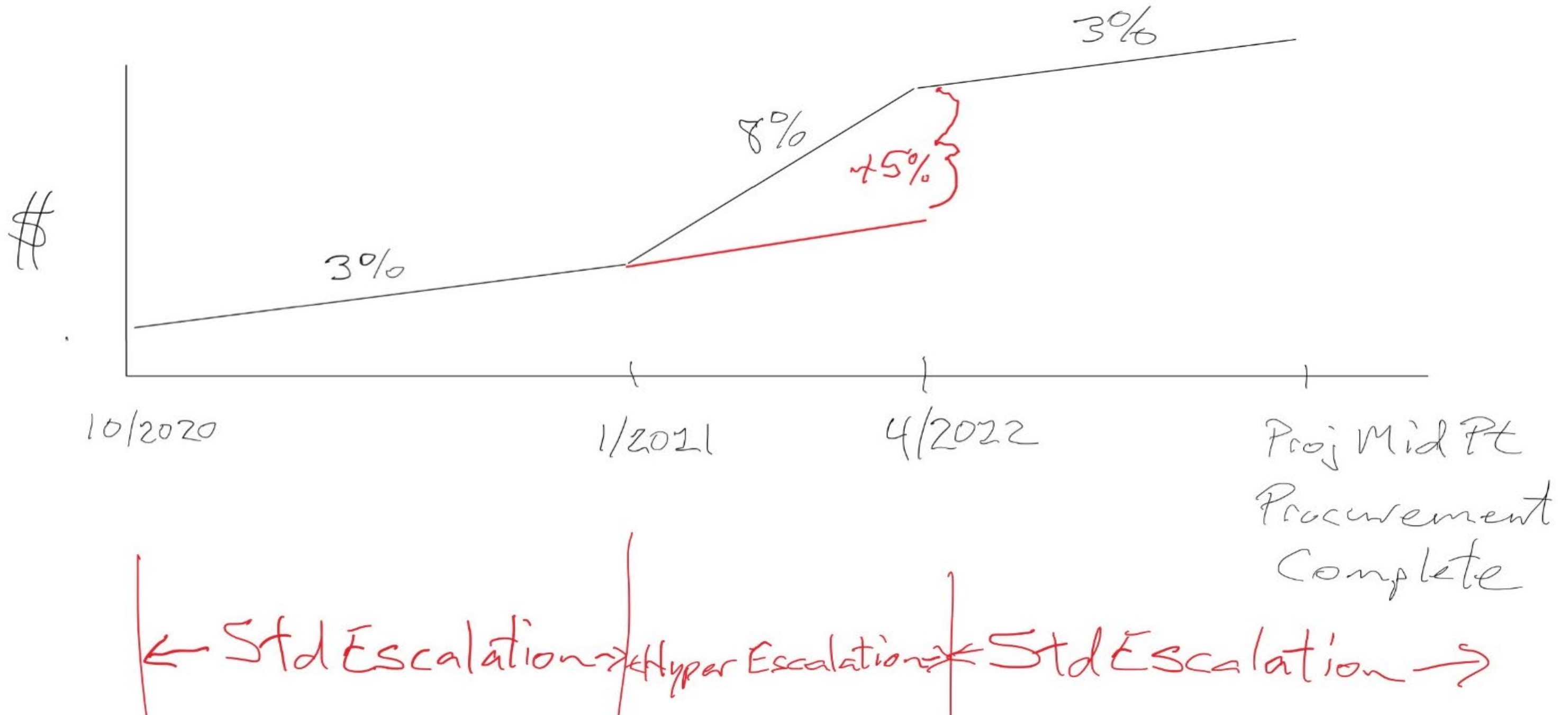
# Hyper-escalation



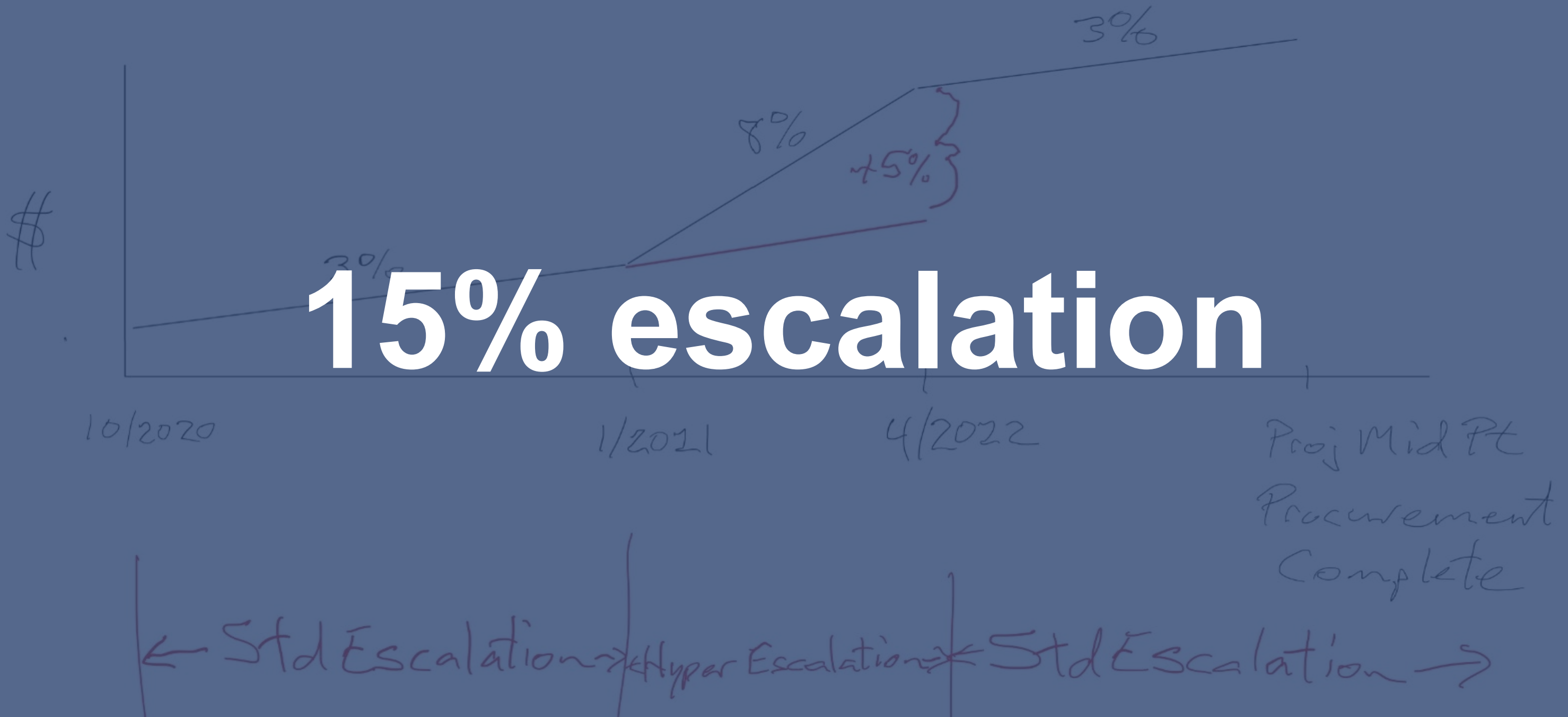
← Std Escalation → Hyper Escalation →



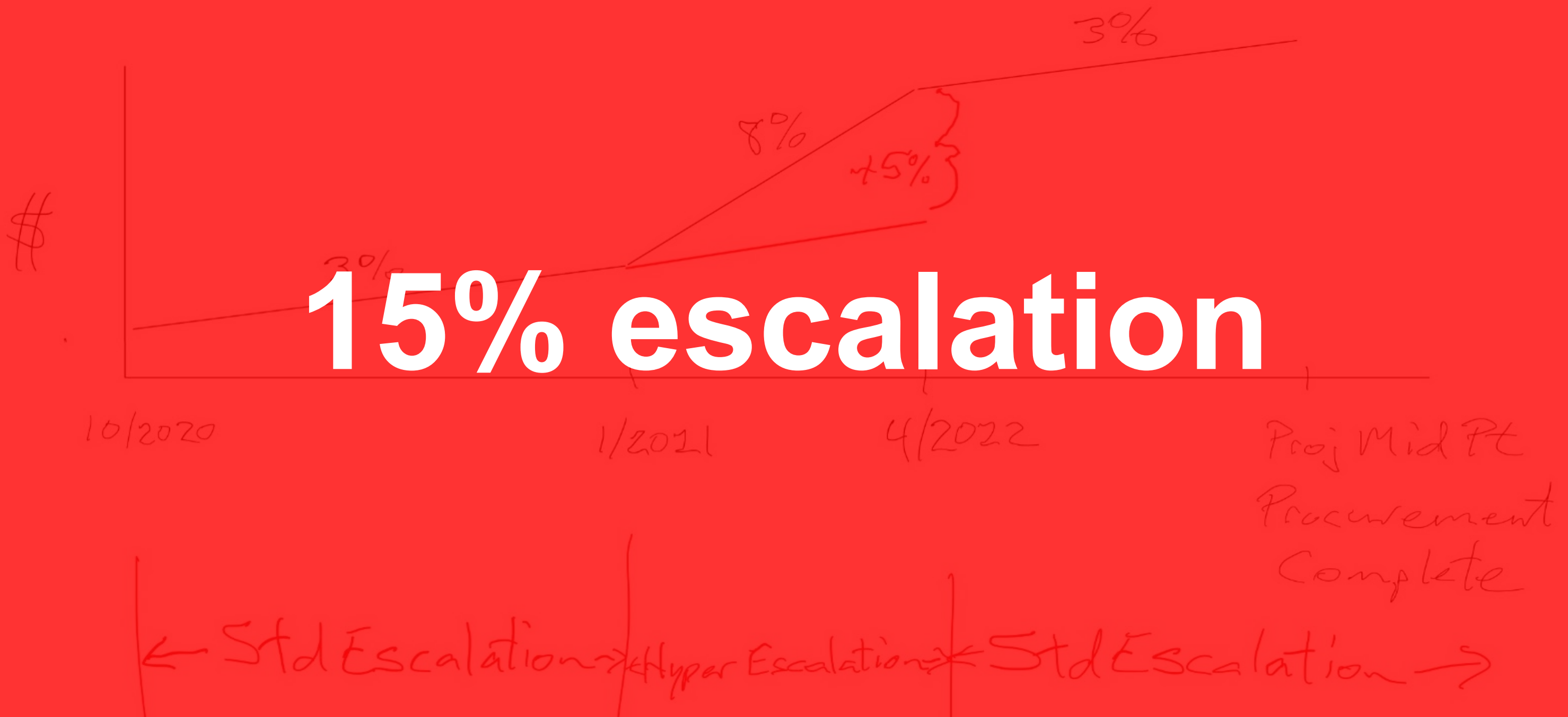
# Hyper-escalation



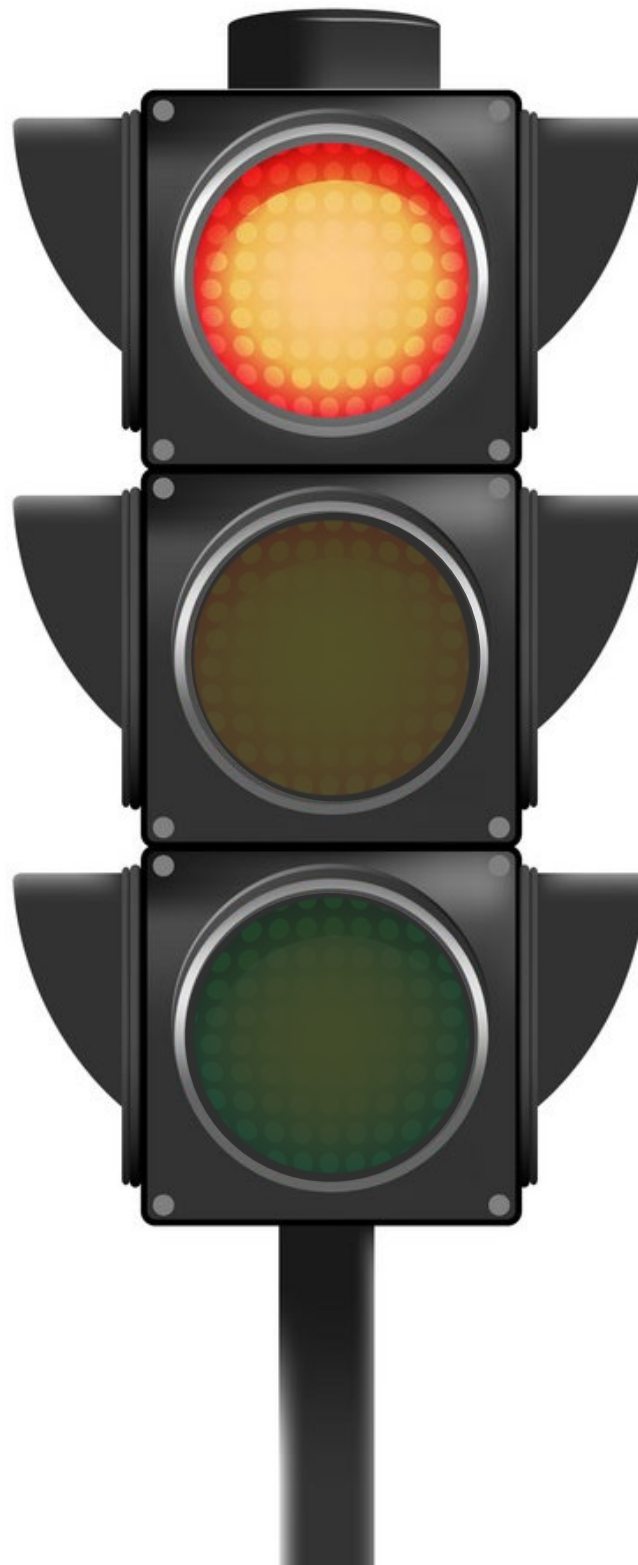














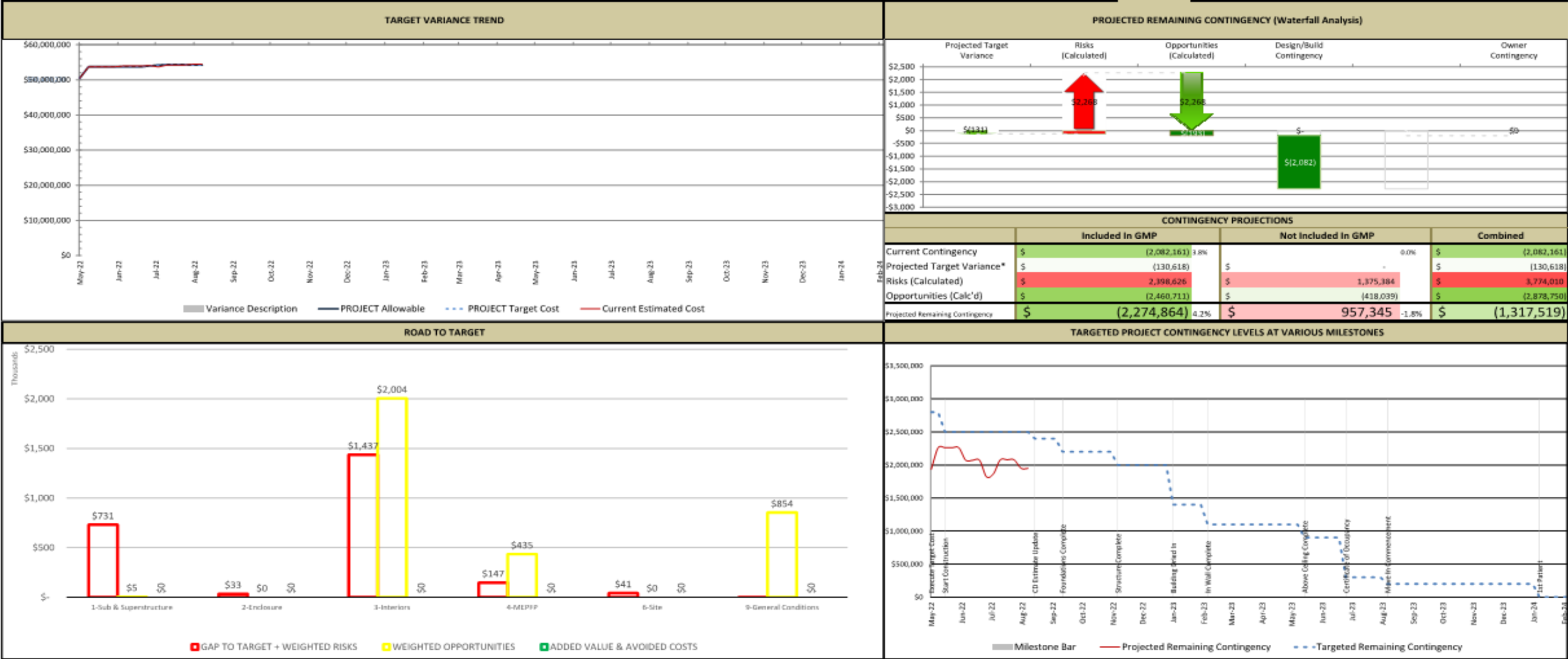








# Measurable Tool





# Understand Each Other



# ⚡FUN⚡ DU LAC

FOND DU LAC  
DESIGN & CONSTRUCTION TEAM

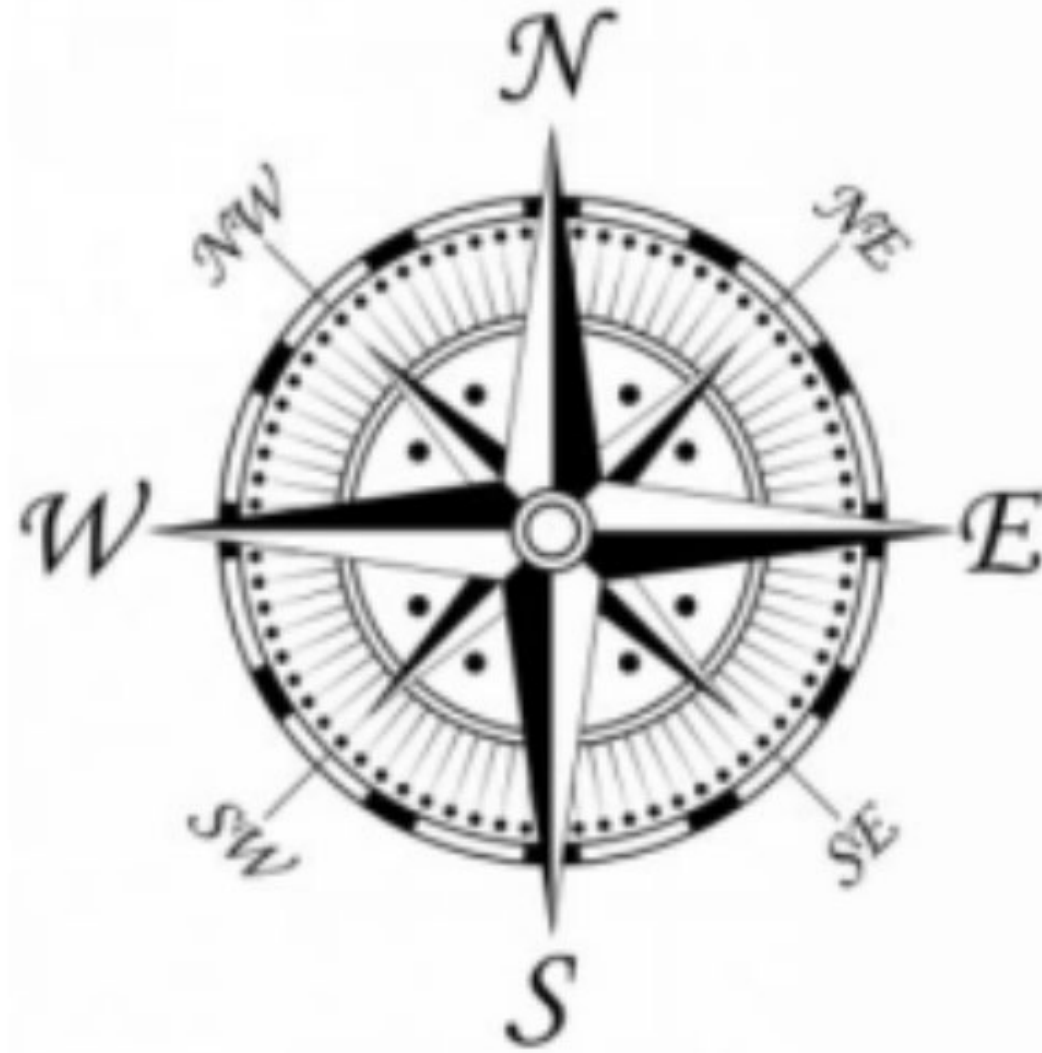


Have Fun



# Sharpen the Axe | Build the Right Project, Build the Project Right





**Project True North**  
Be the Destination of Choice for Community



# Gemba Walk





# Landing the Project

30,000 feet  
Master plan



14 Prep  
Recovery

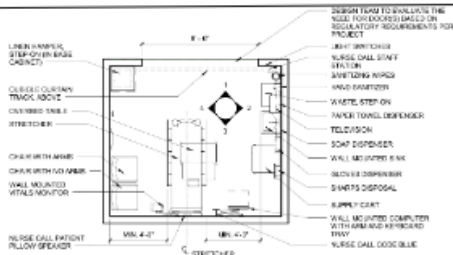
Department location blocks  
Front / Back Flows  
Program Verification  
New / Renovation

20,000 feet  
Floor Plan



Walls / Rooms  
Corridors  
Codes / Operations  
CMS IP / OP Rules  
Mechanicals

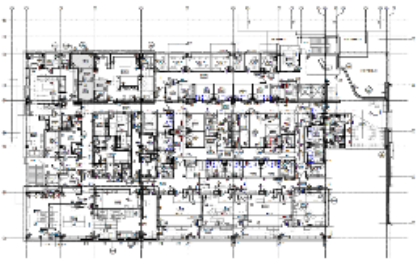
10,000 feet  
Interiors



Equipment  
Furnishing  
Lighting  
Interiors  
Cost Buckets

100 feet  
Build

Details  
Equipment  
Vendors  
Buy-outs  
Activation Prep



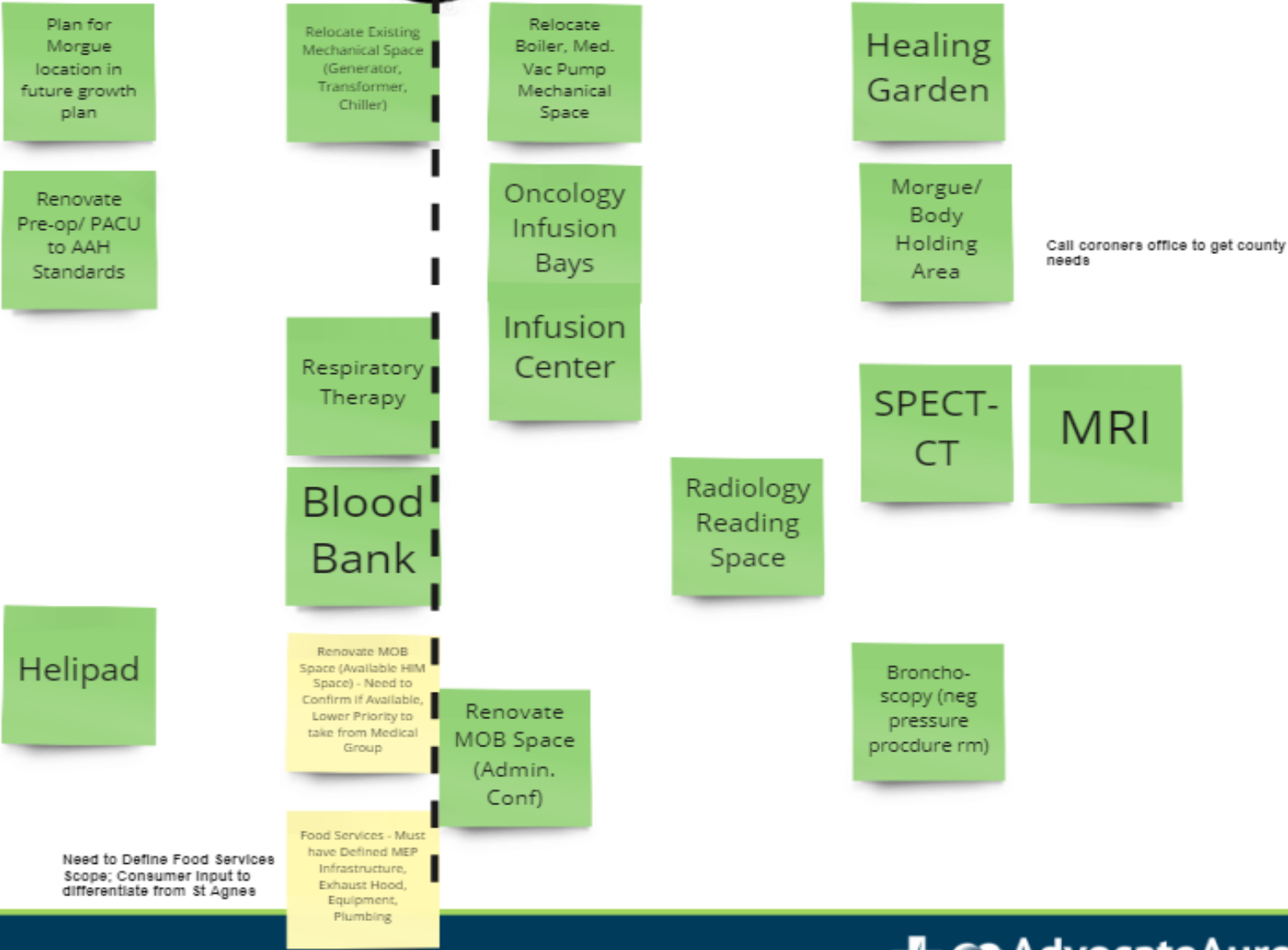
- ✓ Hospital of the Future
- ✓ Virtual Roundtable with Beacon Health & OhioHealth
- ✓ Gemba Walk
- ✓ Master Planning Concepts & Operational Planning



# Must Have

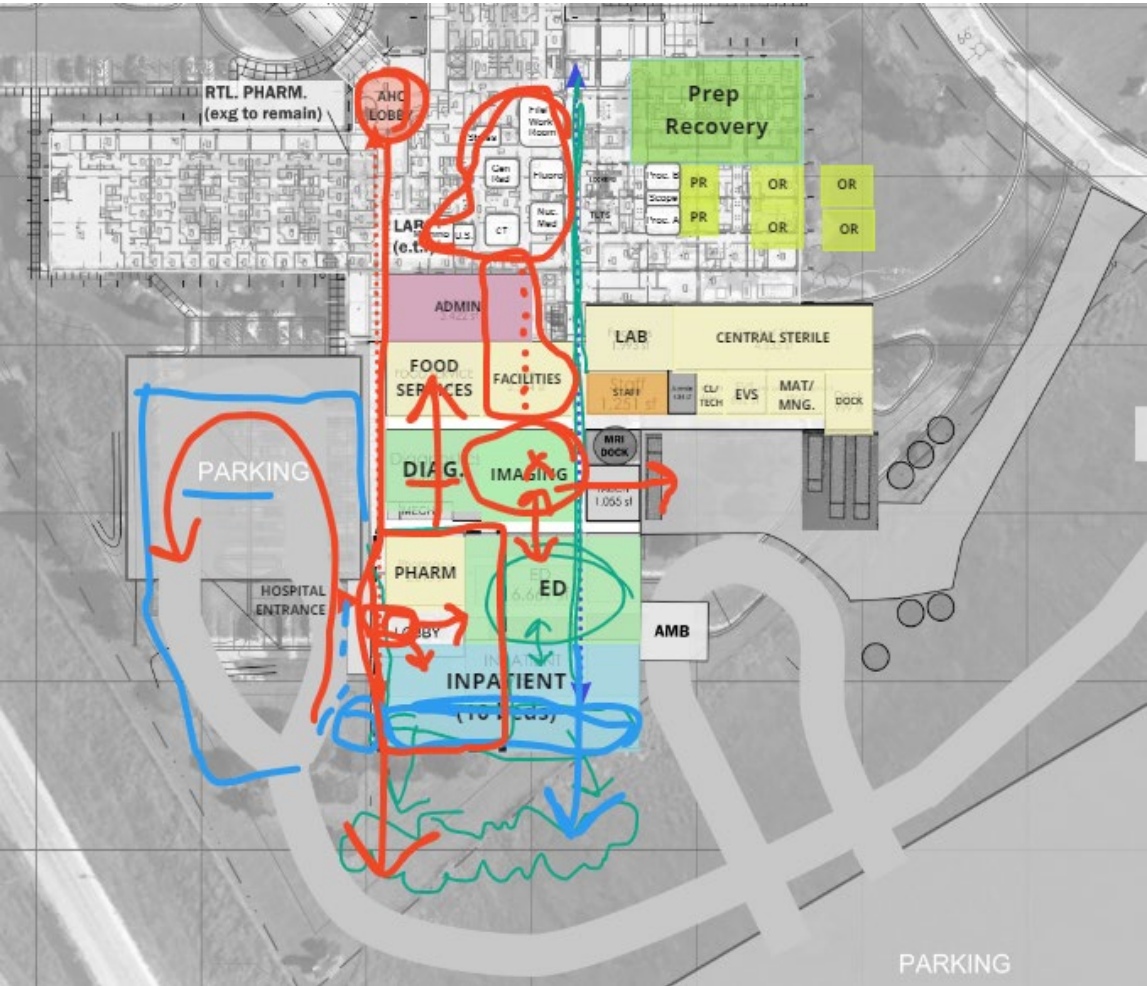
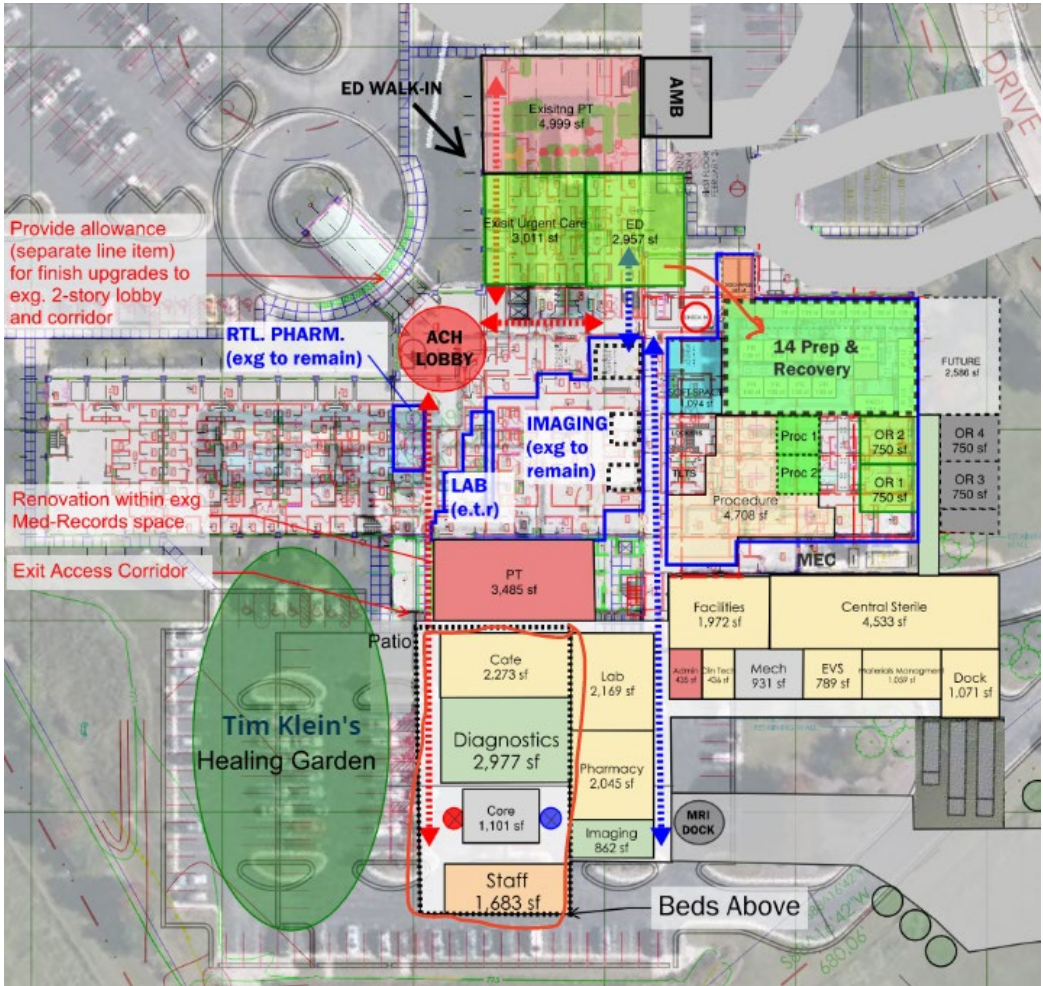
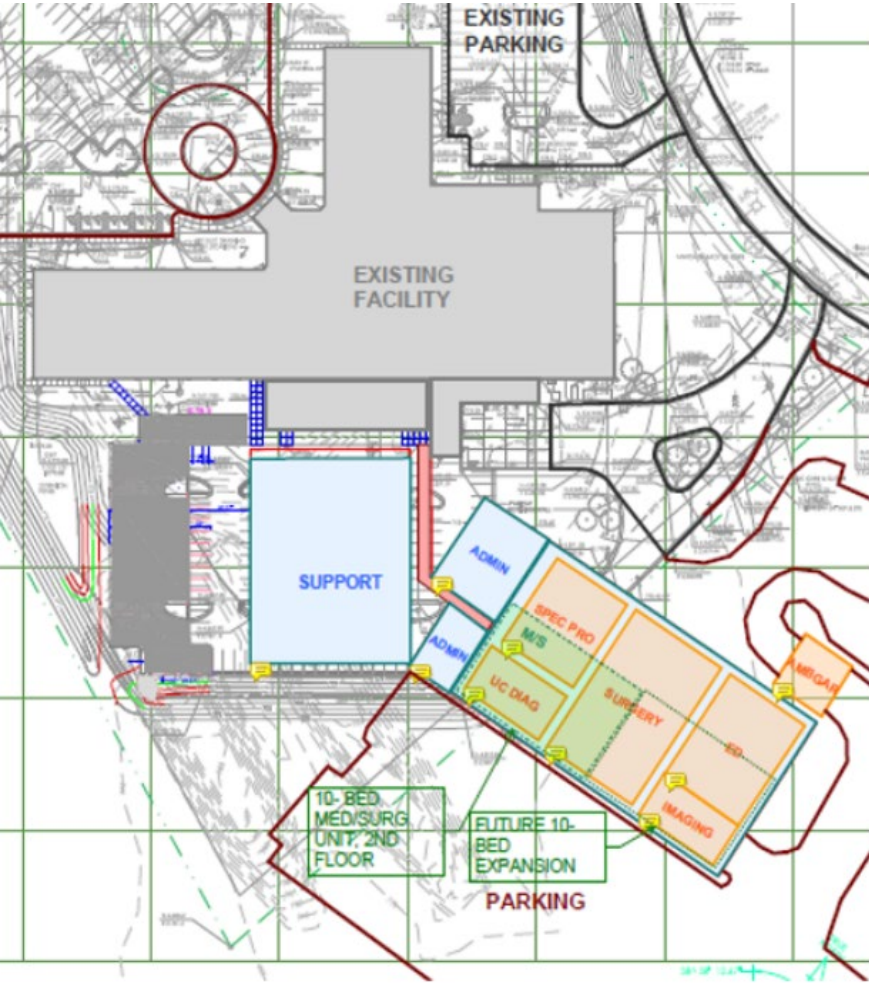
# Nice to Have

On Day 1



Legend  
Red = No  
Yellow = Maybe

LEAN GUMBO: THE RIGHT INGREDIENTS FOR PROJECT SUCCESS





# Campus Plan Recommended Direction

**Medical Office Building**  
Business Occupancy per IBC

**Current HOD Surgical Center**  
Ambulatory Care Facilities Occupancy per IBC  
Ambulatory Health Occupancy per NFPA

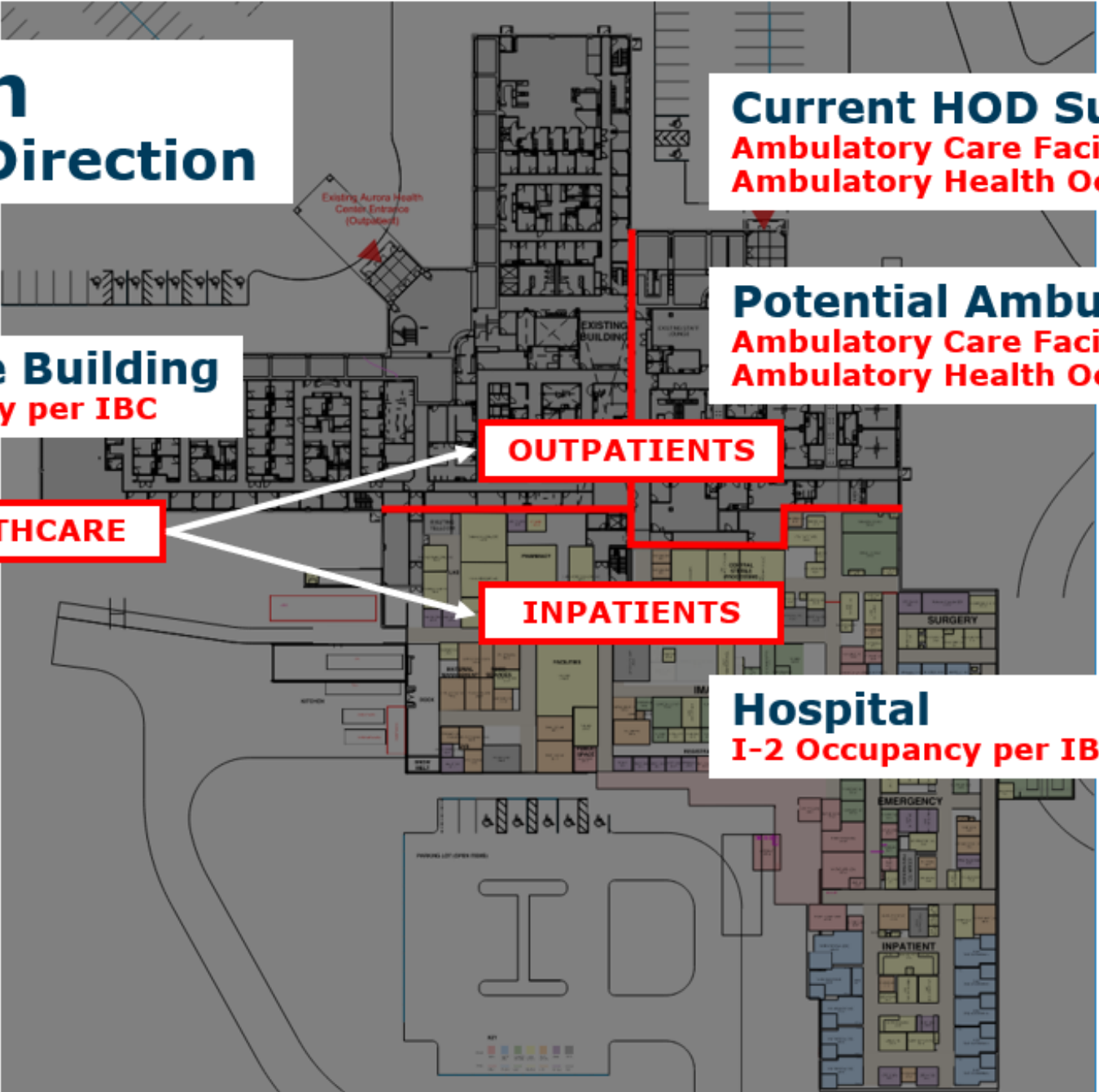
**Potential Ambulatory Surgical Center**  
Ambulatory Care Facilities Occupancy per IBC  
Ambulatory Health Occupancy per NFPA

**HEALTHCARE**

**OUTPATIENTS**

**INPATIENTS**

**Hospital**  
I-2 Occupancy per IBC



New Addition for Imaging

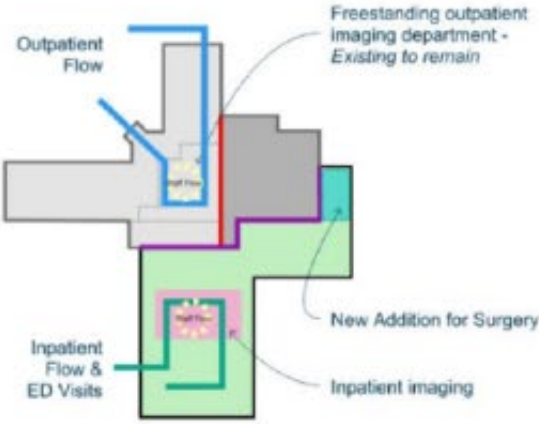
(Alt. 1)

Pros

- No renovation in existing facility
- No disruption to outpatient imaging operation
- No co-mingling of inpatient and outpatient
- No impact on public relations consumer billing
- Most efficient travel distance
- Has expansion capabilities for inpatient and outpatient imaging

Cons

- Duplication of equipment and staff for some imaging modalities



Minor Renovation to Imaging

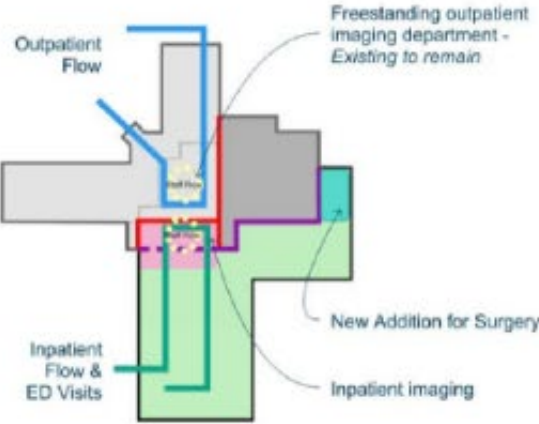
(Alt. 3)

Pros

- Minor renovation to Medical Records to be compliant with "12" occupancy
  - Additional fire wall rating and spray fireproofing within existing Medical Records Room
- Minor disruption to outpatient imaging operation
- No co-mingling of inpatient and outpatient
- No impact on public relations, consumer billing
- Has expansion capabilities for inpatient and outpatient imaging

Cons

- Duplication of equipment and staff for some imaging modalities



Major Renovation to Imaging

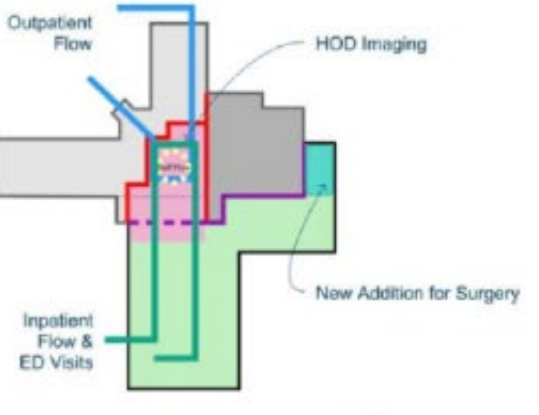
(Alt. 2)

Pros

- No duplication of staff, equipment, and services
- Has expansion capabilities for HOD imaging

Cons

- Major disruption to imaging department operations during construction
  - Require multiple construction phasing
  - Will significantly impact overall project schedule and construction duration
- Major renovation in existing imaging department to be compliant with "12" occupancy
  - Widen corridors from 6' to 8' wide
  - Additional fire wall rating and spray fireproofing
- Temporary imaging trailers during construction and replacement of existing medical equipment are unfunded
- Disruption to outpatient scheduling
- Lengthy travel paths for ED and inpatient
- Consumer impact - increased cost through deductible or co-pay for HOD services, prior authorization rules may change, patients will receive two bills rather than one



Appendix: Expansion Capability

Lessons Learned from Virtual Roundtable with OhioHealth

- OhioHealth: Grove City Methodist Hospital imaging was too small and did not have additional capabilities. OhioHealth is currently planning a \$4.5 million imaging expansion in anticipation of cardiac growth.
- OhioHealth: Grove City Methodist Hospital was initially planned to be an orthopaedic hospital; and they did not include MRI or nuclear medicine as modalities. The patient complement at the hospital has turned into a community hospital rather than orthopaedic. Based on the patient population, they have decided to add MRI and Nuclear Medicine.
- OhioHealth: Pickerington Medical Campus will be duplicating DX, MR & CT modalities in order to service their patient volume/workload.

Expansion Capability for Each Alternate: Plan for soft programmed spaces adjacent to imaging

New Addition for Imaging

(Alt. 1)



Major Renovation to Imaging

(Alt. 2)

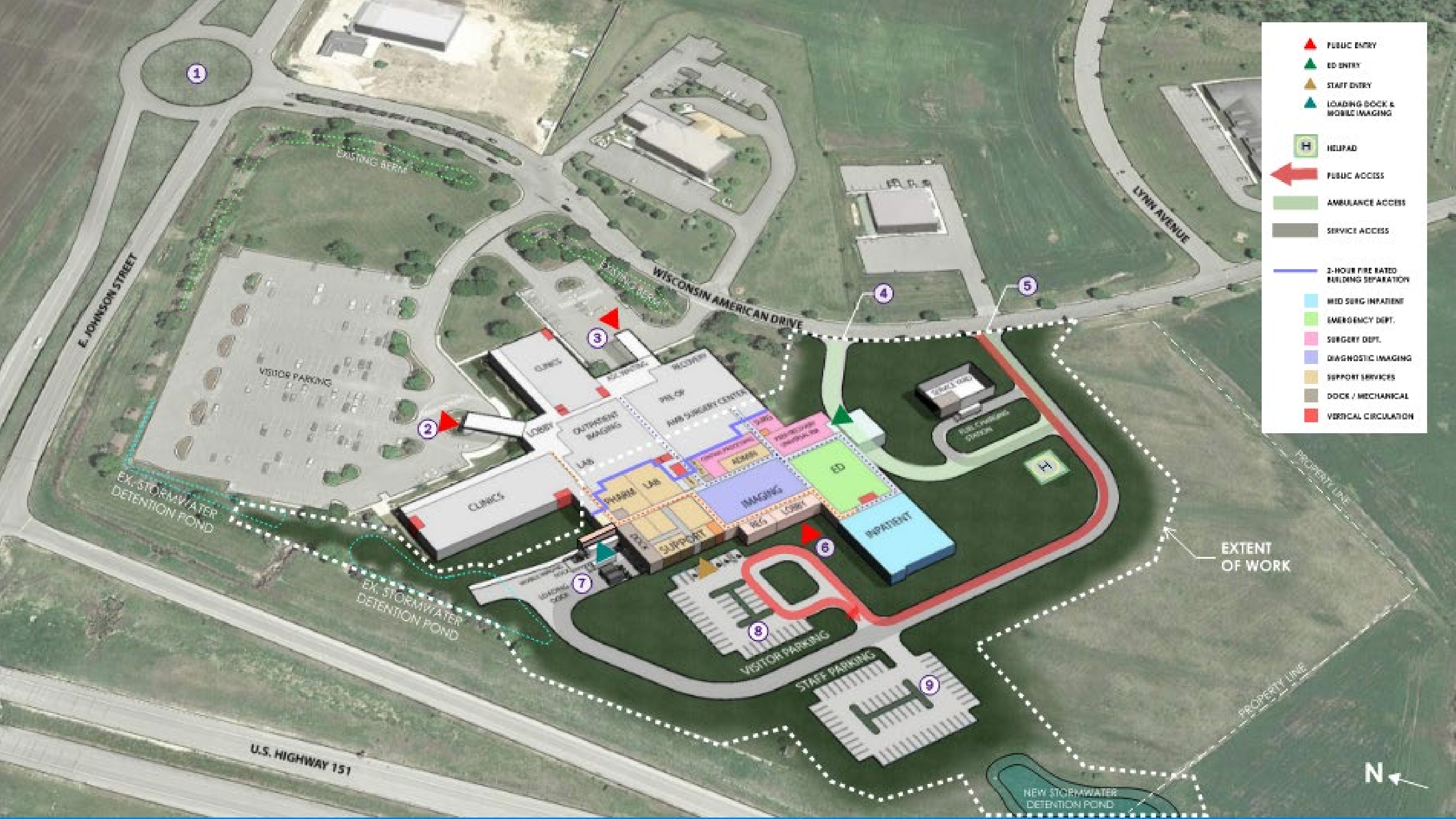


Minor Renovation to Imaging

(Alt. 3)











# Collaboration and Innovation





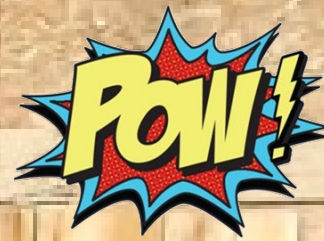
# Collaboration and Innovation





# Lessons Learned





# Sharpening the Axe Takes Courage and Trust

Share news (good and bad) and concerns often





**Transparent and Honest Communication**  
Embrace positive conflict. Assume good intent.





# Just-in-Time Training

Don't ask your team to do something they don't understand





# How can you apply?



# 1. Go Slow to Go Fast

Ensure what we do is in the right direction



shutterstock.com · 1934945492



## 2. Define Value with Your Team

Get collective buy-in



### 3. Develop a Training Plan

Supports each phase of the project

| AAH FDL - EDUCATION PLAN | Jan-21   | Feb-21  | Mar-21   | Apr-21  | May-21   | Jun-21   |
|--------------------------|--|---|--|---|--|--|
|                          | Program Validation - Operational Model & Space Requirements to Support the Model |   |  |   | Design Simulation - Size & Quantity of Rooms, Key Adjacencies, Enabling Work & Room Requirements |  |
|                          |  |   | Set Project Vision & Charter   |   |  |  |
| Lean Design              |  |   | Vocab<br>8 Wastes<br>Value Stream Mapping -<br>7 Flow of Healthcare        |   |  |  |
|                          |  |   | AAH Standards Review -<br>Why and How they were<br>set (Victoria & Cannon) |   |  |  |
| DfMA                     |  | DfMA Workshops -<br>Education & Goal<br>Setting |  |   | DfMA WS#3 Tentative -<br>develop modular/prefab<br>strategy                                      |  |
|                          |  |   |  |   |  |  |
| ILPD Processes           | Validation Alignment -<br>SAT for whitepaper                                     |   |  | Project Goals<br>Guiding Principles<br>Governance Structure<br>Drake P3 | Target Value Design -<br>Set Based Design &<br>Design to Target<br>Process                       |  |
|                          |  |   |  | Touchplan training  | Design Phase Planning  |  |
|                          |  |   |  | ILPD contract overview  |  | Estimate Development &<br>Process (Cost Model to<br>Production Tracking) |
| Sustainability           |  |   |  | Embodied Carbon   |  |  |
|                          |  |   |  |   |  |  |



The background is a pixel art scene. A large, brown tree with a green canopy is the central focus. To its left, a small character with brown skin and a red shirt is standing. The ground is green grass. The sky is light blue with horizontal lines. A semi-transparent white box contains the text. At the bottom, there is a score display showing '0136' and a progress bar with a yellow and black segment.

**“If the tree is big, at some point you will  
need to sharpen the axe again.”**

- Tony Coraggio

0136

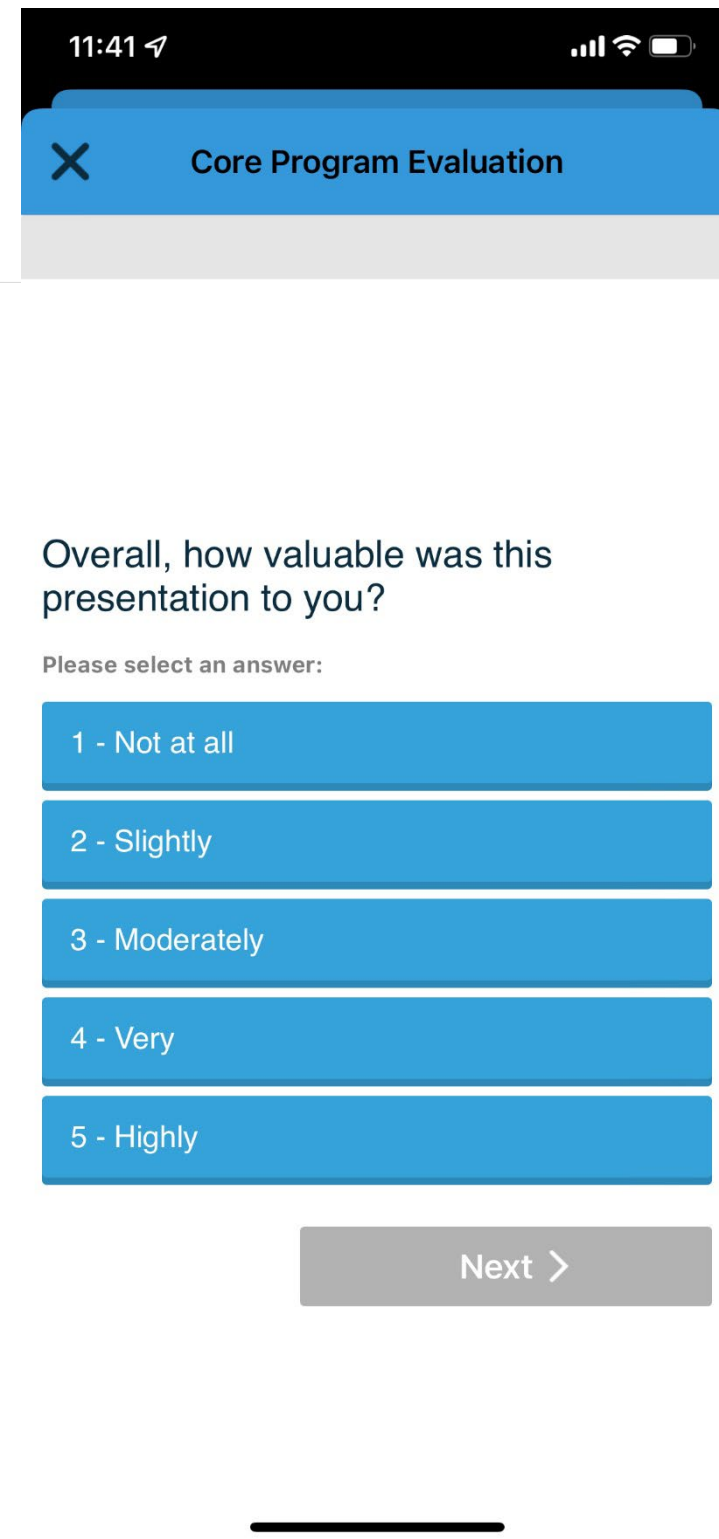
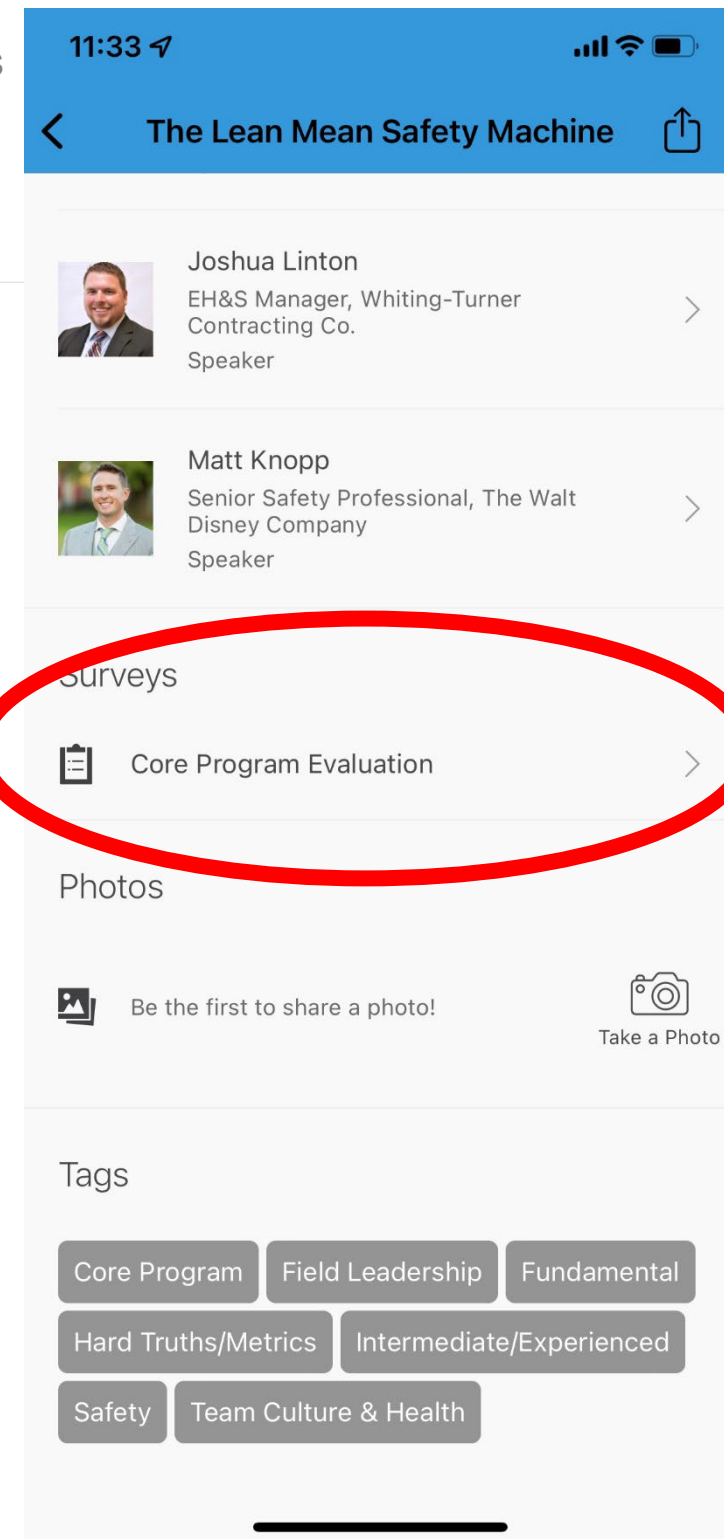


# Rate Presentations in the App

**Continuous improvement:** give presenters your feedback by taking the session evaluation!

1. Find the session under “schedule”
2. Click on it then scroll down
3. Click “core program evaluation”
4. Complete the 5-question evaluation

*This information will determine the top 5 presentation teams and the top Live Lab*







24<sup>TH</sup> LCI CONGRESS  
OCTOBER 18-21



**In the spirit of continuous improvement, we would like to remind you to complete this session's survey! We look forward to receiving your feedback.**





# Contact Us



**Troy Steege**  
Advocate Aurora Health  
[troy.steege@aah.org](mailto:troy.steege@aah.org)



**Annie Sit**  
CannonDesign  
[asit@cannondesign.com](mailto:asit@cannondesign.com)



**Tony Coraggio**  
The Boldt Company  
[tony.coraggio@boldt.com](mailto:tony.coraggio@boldt.com)



**Megan Zak**  
HGA  
[mzak@hga.com](mailto:mzak@hga.com)





24<sup>TH</sup> LCI CONGRESS  
OCTOBER 18-21

Thank you for attending this presentation. Enjoy the rest of the 24<sup>th</sup> Annual LCI Congress!

